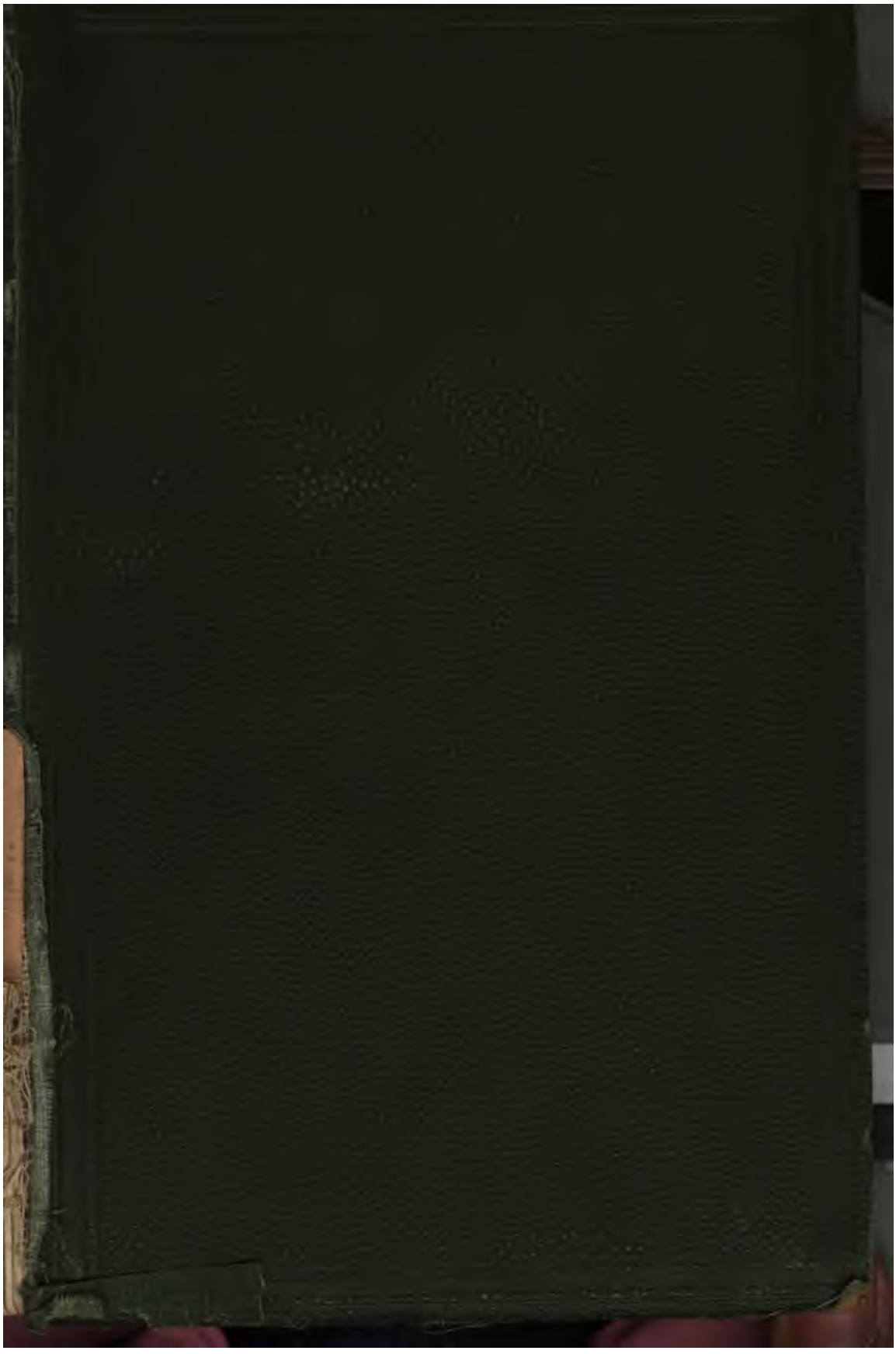

PRIVATE BILL LEGISLATION.

VOL. I.

A

HISTORY

OF

Private Bill Legislation.

BY

FREDERICK CLIFFORD,

OF THE MIDDLE TEMPLE,

BARRISTER-AT-LAW.

IN TWO VOLUMES.

VOL. I.

LONDON:

BUTTERWORTHS, 7, FLEET STREET,

Law Publishers to the Queen's most excellent Majesty.

MANCHESTER: MEREDITH, RAY & LITTLER.

EDINBURGH: T. & T. CLARK; BELL & BRADFUTE.

DUBLIN: HODGES, FIGGIS & CO., GRAFTON STREET.

CALCUTTA: THACKER, SPINK & CO. MELBOURNE: G. ROBERTSON & CO. LMTD.

1885.

LONDON:
PRINTED BY C. F. ROWORTH, GREAT NEW STREET, FETTER LANE, E.C.

Dedication

(BY ROYAL PERMISSION)

TO

THE QUEEN.

MADAM,

During the fifty years of your Majesty's Reign, nearly Eleven thousand Local and Personal Statutes have been passed by the Imperial Parliament, and received your Majesty's Assent. To the vast undertakings completed by Railway and other Companies, and the money expended upon the faith of these Statutes, is due in large measure within this period a social and industrial Progress throughout the United Kingdom of which History affords hardly any other example.

No less memorable during the same fifty years have been the great Sanitary and other Works, together with the numerous Parks, Baths, Picture Galleries, Libraries, and Public Buildings, provided by Local Authorities under Local Acts, adding materially thereby to the health,

comfort and enjoyment of your Majesty's subjects in their ever-growing towns, and accomplishing these ends by measures of local self-government in harmony with the best English traditions.

Within the same period Parliament has cheapened, expedited and greatly improved its procedure upon Local and Personal Bills. These Volumes attempt, for the first time, to describe the changes thus made and trace the History of that Private Legislation which, working quietly, is but little noticed, although it has done so much for the public good.

Your Majesty has been graciously pleased to accept the Dedication of my Work. That it may prove one not unfitting memorial of an auspicious Era in a renowned and beneficent Reign is the earnest hope of,

Madam,

Your Majesty's most faithful Subject,

THE AUTHOR.

*** Her Majesty sanctioned this Dedication on the issue of Vol. II. in the Jubilee year 1886–7.

PREFACE

TO THE FIRST VOLUME.

THESE Volumes will, it is hoped, suggest, however inadequately, the public service rendered by Chairmen of Committees and Members of both Houses who, in successive Parliaments, have devoted themselves to the work of Private Bill Legislation. How great and useful a work this is and ever has been, and how essentially it has contributed to the national well-being, may be gathered, though imperfectly, from these pages. But no such record can adequately show the patience and industry which for many centuries have been devoted to this task, accompanied by a solid good sense and knowledge of affairs, without which the task could not have been properly performed.

There is something painful in the reflection that so much unrequited labour, though bestowed on business of enormous value to the whole country, has passed with such scanty acknowledgment. Outside the walls of Parliament these labours are known to a very limited circle. By constituencies they are wholly unrecognised, because generally unknown. It would be agreeable to me if I could hope that these volumes would create a juster appreciation of the public service thus unostentatiously rendered. In the House of Commons there are easier paths to popularity. All the more gratitude, therefore, is earned by members who are content to devote themselves to minor legislation,

without any other reward than the consciousness of a necessary and important duty faithfully done.

"Minor" legislation, in one sense, private statutes no doubt are. Yet, if we look at their results in the numerous Acts obtained by Local Authorities, as well as in our canal and railway systems, our water-works, gas-works, tramways, docks, harbour and river improvements, and other enterprises, we may see how immense an influence they have exercised for the public good.

An attempt is made in these volumes to trace the growth of this jurisdiction over personal rights and interests, the powers of local authorities, and those of the trading corporations which have had so sudden a rise and so vast a development, mainly during the Victorian era.

All these rights and powers, intimately affecting the social life of the British people, are the creation of private and local statutes. On the faith of these Acts, a colossal capital has been subscribed and lent under conditions and for objects approved by Parliament, often after patient and prolonged inquiry. Investors have trusted to the continued control of Parliament, and to the security thus afforded against uncalled-for interference with their interests. To this same control, again, the public have always looked for protection against arbitrary powers or monopoly.

Such a control has not always been wisely exercised; but in fairness it must be remembered that

during the infancy of great undertakings it has often been difficult, if not impossible, to foresee the public safeguards which afterwards became essential. While Parliament, however, asserts and retains a jurisdiction over Private Bills, existing powers may from time to time be revised as their renewal and extension are sought by existing companies. There is thus a guarantee that public interests will in the end be secured, without undue injury to rights which Parliament itself has created.

In bulk and number local and personal enactments far exceed those of a public nature. For example, between the years 1800 and 1884, the number of public Acts has been 9,556; of private Acts, 18,497. No connected account of this great mass of private legislation has yet been attempted, although it has had momentous results in promoting national prosperity, and to all historical students should be full of interest. Some materials, at least, for this unwritten chapter of British history are here supplied. Their collection and arrangement have been a labour of years, and would have been hardly possible but for facilities enjoyed by the Author in watching, professionally, the course of Private Bill practice in Parliament.

Vol. I. contains a sketch of the legislation by which, especially during the close of the last and opening years of the present century, Parliament promoted and regulated Inclosures. This sketch, and some statistics given in the Appendices, may help to explain the effect and extent of a great

revolution in rural society and in British agriculture. Canals, Gasworks, Tramways, Electric Lighting Companies, and other industrial undertakings, have their place in this Volume. British Railways naturally occupy a considerable space. Each of these subjects has a legislative history which might easily fill more than one volume. It has been necessary, therefore, to use great compression; but the main points of inquiry and decision by Parliament have, I hope, been given. A wide field, again, is open for antiquarian research in tracing the origin and early exercise of jurisdiction over private Bills by Crown and Parliament. To this subject some attention is devoted. Other Chapters deal mainly with Personal Petitions, including those for Naturalization Bills, formerly an important, but now almost a disused branch of Parliamentary jurisdiction; for Divorce and kindred measures, a jurisdiction now transferred to a legal tribunal; and for Bills seeking Restitution in Blood, too common incidents of turbulent times. Early local and personal legislation on a variety of subjects is illustrated by precedents. Their quaint language, and the side-light they throw on many noteworthy events of English history, justify their reproduction, and without them any sketch of Private Bill Legislation would be incomplete.

Vol. II. describes the failure of early enactments to secure a proper maintenance of roads and bridges, and follows the course of local and general laws creating Turnpikes, with the more recent statutes which abolished Turnpikes. To the Water Supply

of London three Chapters are devoted, comprising a history of the City Conduits, Morice's Works at London Bridge, the New River Company in its early career, and the York Buildings Company; a sketch of many abortive schemes at various times submitted to Parliament; the rise and fall of more modern enterprises; the fierce competition which at one time prevailed between the Water Companies; and the failure of various attempts to supersede them by a public trust. How the City Conduits were built and maintained, and for how long a period the citizens of London depended upon a water supply afforded by the Corporation, is a story common to other English municipalities. In this view of the London Water Supply, and from its importance now and hereafter, the space it occupies will not, perhaps, be thought disproportionate. Some consideration is given to the statutory history of Docks and Assurance Companies in London, as well as to the rights of Local Authorities under Charters, the abuses from which municipal corporations suffered and were freed in 1835, and their present vast increase of powers under the authority of local and general Acts.

Among other subjects treated in Vol. II. are the Standing Orders of Parliament relating to Private Bills; the Fees charged upon these Bills by both Houses, no small history in itself; the growth of the Provisional Order system, which has considerably lightened the labours of Parliament, and will repay careful study, but requires, it is submitted, equally careful supervision; the changes introduced

by Consolidation Acts; the Methods of Private Bill legislation in both Houses; Procedure in Committees; and the Court of Locus Standi. In the foot-notes of both Volumes will be found references to a multitude of authorities which have been consulted, with occasional extracts illustrating the text, and, I trust, increasing its historical value and general interest.

In a work embracing subjects so varied, and covering so great a range, errors and omissions are unavoidable. I cannot hope to have escaped from this common lot, for, though no labour has been spared in collecting and examining authentic materials, the mass of such materials is almost overwhelming. If a future edition be called for, I shall gratefully avail myself of any material corrections which may be pointed out. Meanwhile I have to acknowledge much valuable aid. My friend PEMBROKE SCOTT STEPHENS, Esq., Q.C., of the Parliamentary bar, has given me the benefit of useful suggestions and revision. I have enjoyed a similar advantage, in preparing those parts of Vol. I. which relate to Railways, from the practical knowledge and experience of JAMES GRIERSON, Esq., General Manager of the Great Western Railway. The labour of preparing a copious Table of Contents to each Volume, and a general Index at the end of Vol. II., has been kindly undertaken by PHILIP HENRY CLIFFORD, Esq., of Old Square, Lincoln's Inn, Fellow of Christ's College, Cambridge.

1, PLOWDEN BUILDINGS, TEMPLE.
June, 1885.

CONTENTS.

VOL. I.

INTRODUCTION.

CHAPTER I.

PRIVATE LEGISLATION: ITS RISE AND DEVELOPMENT.

CHAPTER II.

MESSAGES BETWEEN THE TWO HOUSES: PROTESTS BY PEERS: ANSWERS AND ASSENTS BY CROWN TO PETITIONS OR BILLS: ROYAL ASSENT BY COMMISSION.

CHAPTER II.—*continued.* PAGE

CHAPTER III.

INGROSSMENT OF PRIVATE BILLS AND ACTS: INROLMENT AS STATUTES: DRAFTED IN STATUTORY FORM BY JUDGES: PROTESTS BY COMMONS AGAINST DELAY IN DRAFTING: ANCIENT RECORDS AND LANGUAGE OF STATUTES: FIRST PRINTED COLLECTION OF ACTS: ORDINANCES: MODE OF CERTIFYING PRIVATE ACTS: PROMULGATION.

CHAPTER III.—*continued.*

CHAPTER IV.

EARLY PRECEDENTS (PERSONAL): ACTS OF ATTAINDER AND RESTITUTION IN BLOOD: DIFFERENCES BETWEEN HOUSES AS TO RIGHT OF ORIGINATING SUCH BILLS: ACT DEGRADING FROM DUKEDOM: ACTS NOT PRINTED IN STATUTE-BOOK: A JUDICIAL MURDER: ESTATE, NATURALIZATION, AND DIVORCE ACTS: MISCELLANEOUS.

CHAPTER IV.—*continued.* PAGE

CHAPTER V.

EARLY PRECEDENTS (PERSONAL) CONTINUED: DIVORCE BEFORE THE REFORMATION: REFORMATIO LEGUM ECCLESIASTICARUM: PARLIAMENTARY DIVORCE: MARQUIS OF NORTHAMPTON: LORD ROOS: JAMES CAMPBELL: EARL OF MACCLESFIELD: DUKE OF NORFOLK: DIVORCE OBTAINED BY WOMEN: DIVORCE ACT, 1857: MARRIAGES ANNULLED—CASES OF JOHN GOODING AND EDWARD GIBBON WAKEFIELD: SEPARATION BILLS FOR CRUELTY OF HUSBAND: LADY ANGLESEA AND COUNTESS FERRERS: DECLARATION OF ILLEGITIMACY BILLS: TOWNSHEND PEERAGE CASE: DIMINISHED NUMBER OF PERSONAL ACTS.

CHAPTER VI.

EARLY PRECEDENTS, CONTINUED:—THE TEMPLARS: FORESTALLING HERRINGS AT YARMOUTH: SALT FISH AT BLAKENEY: MORTMAIN: FORAYS BY DWELLERS IN TYNEDALE: UNRULY SCHOLARS AT OXFORD: BERWICK: EXEMPTIONS FROM MILITARY SERVICE: FELLOWSHIP OF PHYSICIANS: INCORPORATION OF SURGEONS: RIVERS, HARBOURS, AND DOCKS: LOTTERIES: PAYMENT OF MEMBERS OF PARLIAMENT.

APPENDIX A.

APPENDIX B.

APPENDIX B.—*continued.* PAGE

APPENDIX C.

APPENDIX D.

ERRATA.

Through an alteration in the arrangement of Chapters, the following references should be corrected in the Introduction :—

At page 3, note 3, the reference should be to pages 455–6.
,, 4, ,, 1, ,, ,, Vol. II. c. VII.
,, 5, ,, 1, ,, ,, ,, ,,
,, 5, ,, 3, ,, ,, pages 469 *et seq.*
,, 6, ,, 2, ,, ,, ,, 484–5.
,, 7, ,, 3, ,, ,, ,, 480 *et seq.*

A History of

PRIVATE BILL LEGISLATION.

INTRODUCTION.

CONSIDERING how largely private legislation has contributed to social and material progress within the United Kingdom, but little attention has been given to its origin and development. One reason is, that it has rarely been prominent in debate, or the subject of exciting agitation outside Parliament. Most people are aware that, from the earliest times, by private or quasi-public measures, Parliament has made laws affecting personal and local interests as well as the interests of the whole community. But private bills have ever been the humble companions of public measures, largely ignored at one period in the statute book,[1] hardly noticed by contemporaries, almost wholly neglected in history.

Private legislation obscured by public measures.

That this obscure lot should have fallen to private legislation was not the fault of Parliament itself. The earliest journals of both Houses show traces of continuous diligence and industry bestowed upon private bills,[2] with a continued

Importance attached to private bills by Parliament.

[1] In the fifteen years between 1801–14, the number of private Acts not printed was 1,298. Since then the numbers not printed have gradually diminished. In the ten years ending 1883 only ten private Acts were omitted from the statute book. (See Appendix A.)

[2] Once, indeed, no doubt for good cause, there was a break in this business. In 1571, members of the Commons appointed to hold conference with the Lords, "brought report that, as the season waxed very hot and dangerous for sickness, so the Lords desired that this House would spend the time in proceeding with necessary bills for the commonwealth, and lay aside all private bills in the meantime." (1 Com. J. p. 85.)

watchfulness lest these should encroach upon public rights or injuriously affect the rights of individuals. By inquiry in Committees, by arguments and evidence at the bar of either House,[1] Parliament was careful that great concerns of State should be no excuse for neglect in discharging minor duties. Its most eminent members, statesmen, prelates, politicians, did not grudge their help towards this work,[2] but recognized how powerful was the influence they thus exercised in meeting new wants and developing national wealth; how indispensable, also, under varying social conditions, was the control of Parliament in determining the expediency of any powers sought, in preventing monopoly, and, at the same time, in giving fair protection to private interests and free play to private enterprise. Nor did Parliament allow this work to be slurred over or evaded. Peremptory orders frequently occur in the Commons' Journals, when bills were committed relating to estates or raising legal questions, that such Committees should be attended by all members of the long robe. And if space was wanting for these inquiries at Westminster, they were still not to be delayed, for Committees were appointed to meet at the Temple Church and the Savoy, at Guildhall, at the halls of the Middle and Inner Temple, or some other place outside the walls of Parliament where members might conveniently assemble.[3]

Service on Committees.

Personal Acts.

When the objects of special measures rarely went beyond a few *privilegia* sought by individuals, or exactions and spolia-

[1] Inquiry and evidence before a Committee did not necessarily preclude a repetition of arguments by counsel and a re-examination of witnesses before the whole House. (See Proceedings on Bridgwater Canal Bill, 1762, p. 36.)

[2] Sir Francis Bacon served in 1605 on the Thetford School and Almshouse Bill (1 Com. J. p. 259); Sir Edward Coke in 1623, upon Heron's Estate Bill, and a bill for confirming the Foundation of the Charterhouse (ib. pp. 681, 685); Selden upon a Naturalization Bill; and great names constantly occur among the private Committees of these and later periods.

[3] After 1580 the Temple Church ceased to be appropriated to this secular use, but Committees of the Commons continued for many years to meet at the halls of the Inns of Court and City Companies. (1 Com. J. pp. 85 *et seq.*)

tions by the Crown, it is easy to account for much indifference to the records of such legislation. Bills of attainder, bills to reverse attainder and remove this taint from the blood of descendants,[1] bills to reward the king's favourites with forfeited estates, or to mulct and banish his enemies, recur with a monotonous regularity in the statutory chronicles of Plantagenets and Tudors, and form a sad record of royal tyranny and of subserviency by Parliaments.[2] Nor is the statute book perhaps less dull when it naturalizes foreigners, confers on landowners powers to sell, lease, disgavel or exchange, or otherwise relaxes some of the incidents of feudal tenure. We soon come, however, to objects which, though limited to certain districts, intimately concern the general well-being. Even in 1357 sea fishing at Great Yarmouth and on the east coast was a matter of high moment; the fish, too, when caught must reach consumers in the proper markets without intervention by forestallers, including especially those hostelers who lodged the fishers and sold herrings "as dear as they will, giving to the fishers what pleases them."[3] So with the salt fish of Blakeney, which was sold too dear, to the great hurt of the people, whereof the Commons prayed a remedy.[4]

Estate and Naturalization Acts.

Sea fisheries.

Weirs in rivers were denounced in public and private Acts unceasingly from Magna Charta downwards, and, like other objects of denunciation in later times, seem to have been little the worse for it. They were a vested interest which must have enjoyed powerful protection;[5] and the salmon,

River weirs, and fishing.

[1] So lately as the year 1824, Acts were passed reversing attainders against the families of Nairn, Jerningham, Erskine, Drummond and Gordon; and in 1826 there were similar Acts restoring their titles to the Earl of Carnwath, the Earl of Airlie, Lord Duff and Lord Elcho. A few Acts of the same description have been sanctioned during the present reign. *Post*, pp. 367 *et seq.*

[2] See, among other examples, the private Acts passed in the reign of Richard III., proving the king to be true and undoubted heir to the throne, and making his brother's children illegitimate.

[3] 31 Edw. III. c. 2, *post*, p. 391.

[4] Stat. *De pisce salito de Blakeney*, 31 Edw. III. c. 3.

[5] It appears from the second Charter of Richard I. to the City of London (in 1197), that the owners of weirs in the Thames paid certain dues in respect of them to the constable of the Tower on behalf of the king.

for which successive Parliaments tried to ensure free passage to the upper waters, continued to be caught on their way in spite of statute.

Highways.

While doing its best to cheapen sea and river fish as food for the people, Parliament found that the old common law liability of parishes to maintain their highways was faulty, and that some more effective means must be provided in particular cases. Thus, in 1421, certain public roads passing through the Abbot's manor, near Abingdon, had been repaired by inhabitants of that town out of their own proper goods, and alms by them collected; and provision was made for future repairs, with free passage for all the king's liege subjects for ever, on horse and foot ("si bien à chival come a pêe"), the Abbot and his convent notwithstanding.[1] But voluntary contributions and alms even for these necessary purposes were seldom forthcoming. To amend, therefore, the roads around Oxford, occupiers must furnish, in proportion to the size of their holdings, wains with oxen, horses or other cattle, with able men to load and unload; and all cottagers (not being hired servants) must contribute labour.[2] This system of forced labour was made of general application;[3] and upon notice given in parish churches after morning prayer, waywardens were to be chosen to manage the work. Then to prevent undue wear and tear, it was enacted that, with exceptions as to husbandry and the king's service, no waggons should be drawn by "above six horse beasts," or "eight oxen." Still the remedy failed, and English roads remained among the worst in Europe.[4]

Statute labour.

[1] 9 Hen. V. c. 11, *post*, Chap. "Highways and Roads," p. 432.

[2] 18 Eliz. c. 20.

[3] 14 Car. II. c. 6.

[4] "It was only in fine weather that the whole breadth of the road was available for wheeled vehicles. Often the mud lay deep on the right and the left; and only a narrow track of firm ground rose above the quagmire. It happened, almost every day, that coaches stuck fast, until a team of cattle could be procured from some neighbouring farm to tug them out of the slough. But in bad seasons the traveller had to encounter inconveniences still more serious. Thoresby, who was in the habit of travelling between Leeds and the capital, has recorded in his diary such a series of perils and disasters as might suffice for a journey to the Frozen Ocean or the Desert of Sahara. On one occasion . . he was

A mixed system of forced labour and assessment was therefore tried; and in another century, toll-gates were substituted,[1] statute labour was abolished, and a foundation was laid for the passing of 3,800 private and local Acts, authorizing 22,000 miles of turnpike roads, the annual repair of which cost 1,122,000*l.*[2] Then this system, created by Parliament after so much thought, and with such infinite toil, broke down in its turn, leaving fair roads, but a hopeless accumulation of debt: one example out of many of great public benefits conferred by private legislation at the cost of private investors. Turnpikes.

Highways were not alone to be mended. A growing trade with parts beyond the seas required that ports and havens should be looked to and deepened, that waterways should be cleared from shelfs or shoals,[3] and consideration given to many pitiful complaints from townspeople of the decay of their ancient roadsteads and harbours through the Ports, havens and rivers.

detained at Stamford four days, on account of the state of the roads, and then ventured to proceed only because fourteen members of the House of Commons, who were going up in a body to Parliament with guides and numerous attendants, took him into their company. The great route through Wales to Holyhead was in such a state that in 1685 a viceroy on his road to Ireland was five hours in travelling fourteen miles from St. Asaph to Conway. Between Conway and Beaumaris he was forced to walk great part of the way, and his lady was carried in a litter. His coach was with great difficulty, and by the help of many hands, brought after him entire. In general, carriages were taken to pieces at Conway, and borne on the shoulders of stout Welsh peasants to the Menai Straits. In some parts of Kent and Sussex, none but the strongest horses could in winter get through the bog in which, at every step, they sank deep. The markets were often inaccessible during several months. It is said that the fruits of the earth were sometimes suffered to rot in one place, while in another place, distant only a few miles, the supply fell short of the demand. The wheeled carriages were in this district generally pulled by oxen." Macaulay's History, c. 3.

[1] By 15 Car. II. c. 1, in the counties of Hertford, Huntingdon and Cambridge. In 1346 a toll for "pavage" was levied by the City authorities on vehicles passing from St. Giles's-in-the-Fields to Temple Bar. The first statute sanctioning tolls was that cited. See *post*, Chap. "Highways and Roads."

[2] Report of Royal Commission of 1840 on State of Roads in England and Wales, p. 9.

[3] See statutes passed in 1424, and subsequently, for surveying and amending defaults in the Lea and other rivers, cited *post*, pp. 404 *et seq.*

reckless casting out of ballast. More than 300 years ago, tonnage rates on shipping were allowed to be levied for the improvement of Dover harbour, as being a convenient refuge in the narrrow seas for ships sheltering from tempests, pirates, or the common enemy in time of war.[1] These rates, however, were granted only upon full assurance "that skilful men have contrived a probable plan and undertaken the finishing and perfecting thereof for a competent sum of money;"[2] a task upon which skilful men have been engaged ever since, by virtue of statutes passed in almost every succeeding reign, including five at least in that of Queen Victoria.

Dover harbour.

Before havens and waterways could be used for commerce, ships must be free from molestation, and in the estuary of the Severn, in the years 1430-1, many Welshmen and ill-disposed persons were used to "assemble in manner of war," and stop trows, boats, and floats or drags, on their way with merchandize to Bristol, Gloucester, Worcester, and other places; hewing in pieces these craft, and beating the sailors with intent to force them to hire boats from the said Welshmen, for great sums of money: an evil example and great impoverishment of the king's liege people, if remedy were not hastily provided.[3] Prompt remedy would have been afforded by despatch of a royal cruiser, had his Majesty's navy then been able to supply one. The only statutory cure tried was a declaration that if any man's free passage in the Severn were thus hindered he should have his action according to common law; but there is reason to fear that Welshmen then laughed the common law to scorn. Eighty years afterwards, certain "misruled persons," the foresters of Dean, were guilty of like misdeeds. The free passage of rivers was hindered, too, by passing tolls unlawfully set and levied on merchants and owners of goods by local authorities in riverside towns. The

The Severn.

Passing tolls.

[1] Rye and Winchilsea in 1548 (2 & 3 Edw. VI. c. 30).

[2] 23 Eliz. c. 6, *post*, p. 420. Much money was also spent in improving the harbour in the two previous reigns.

[3] 9 Hen. VI. c. 5.

king's highness, by advice and assent of Parliament, had to provide remedies for these complaints by local traders, and at the same time retain for rising municipalities such just dues on vessels or goods as they could show a clear title to.[1]

New cuts.

From the deepening of rivers for purposes of navigation, the next step was to straighten them by new channels. The Corporation of London stand honourably first in undertaking this work, and were authorized in 1571 to bring the River Lea to the north side of London by "such a convenient and meet cut as may serve for navigation," maintaining substantial banks to guard against floods.[2] So at Chichester, "taken to be at this present time the best haven between Portsmouth and Thames' mouth," very necessary and commodious to ships in extremity of tempest and foul weather, the mayor and citizens obtained powers to cut out, trench and draw the haven to the city suburbs, which, in the opinion of "divers wise and discreet persons, skilful and experienced in like works, may very easily be done in respect of possibility;" a delightful saving clause, put in, one may suppose, by the engineer, to show that money was even then the only limit to engineering achievements.[3] Grants of similar powers lead on to a long course of improvements in the navigation of rivers, begun under James I., but chiefly carried out by means of private Acts passed after the Restoration.[4]

The Lea.

Chichester haven.

Improvements by municipalities.

These and other early works of improvement were carried out by municipal bodies. Three hundred years ago, private adventurers or undertakers, as they afterwards came to be called, were not easily found. It was still more difficult to raise money for such purposes. Local authorities alone were able or willing to do so; but even their enterprises, after being sanctioned by the Legislature, appear to have often broken down through want of funds. They were the first, however, to encourage trade by spending upon

[1] 19 Hen. VII. c. 18.

[2] 13 Eliz. c. 18. See also 3 Hen. VI. c. 5, and 9 Hen. VI. c. 9.

[3] 27 Eliz. c. 22; *post*, pp. 416 *et seq.* For the latest legislation to the same effect, see Chichester Harbour Embankment Acts, 1859, 1864 and 1867.

[4] 13 & 14 Car. II. *et seq.*

harbour or river improvements such money as they could command from their corporate property, or as could be raised upon the security of the scanty rating powers granted by Parliament. The earliest docks at Liverpool and other ports were also built, under statutory powers, at the expense of municipalities. In Liverpool the Corporation, in the year 1709, were minded to lessen the dangers which beset ships entering their port "for want of proper landmarks, buoys and other directions," and for want also of a convenient wet dock or basin. They therefore gave, for the latter purpose, four acres of land, parcel of the waste belonging to them, lying near "the Poole"; but as the proposed works would "cost more than the inhabitants and Corporation can raise," they procured an Act authorizing them, for twenty-one years, to charge rates on ships entering the port.[1]

Docks.

Two Pennies Scots Acts.

In Scotland most of the municipal authorities received aids from Parliament for like objects by means of a curious series of Acts known as the Two Pennies Scots' Acts. The earliest of these were passed by the Scotch Parliament,[2] and were confirmed and renewed, and fresh privileges to the same effect granted, after the Union. By virtue of these Acts, Town Councils were authorized, during certain limited periods, to charge duties of two pennies Scots, or the sixth of a penny sterling, on every pint of ale or beer sold within their boundaries. These duties were in addition to the public excise. The privilege of imposing them was conferred, according to several of the preambles, as rewards for the loyalty of the townspeople and for their zeal "in supporting and defending the Protestant interest;"[3] the revenue thus raised was to be applied to specified local objects.

Edinburgh.

At Edinburgh these objects included the renewal of water-pipes and conduits, enlargement of the harbour,

[1] 8 Anne, c. 12. The term was extended by 3 Geo. I.; by 11 Geo. II., the corporation were authorized to enlarge their wet dock and build a pier.

[2] In 1693, applying to Edinburgh and Glasgow.

[3] Preamble to 3 Geo. I. c. 5. See *post*, Chap. "Local Authorities."

deepening the channel at Leith, and building a new quay there. Glasgow was mentioned in its Act with special honour as a place distinguished for great natural advantages, "but yet more considerable for its loyalty and zeal for the reformed religion, the constitution and liberty of the people," and by raising a well-armed and disciplined force for the defence of the Government since the Revolution "on divers very remarkable occasions, and lately in a most cordial and cheerful manner, in opposition to the most unjustifiable rebellion begun and carried on by a Popish Pretender." While, therefore, the merit of laudable services was fresh in memory, and to the end that other cities might follow their example, "seeing that just encouragement is provided as a reward of duty and loyalty," this ale and beer tax was granted to the Corporation for sixteen years towards enabling them to pay their debts, "beautify" their city, and improve their trade.[1] Dundee, Dumfries, and many other burghs obtained similar privileges, on condition of applying the money towards useful local purposes, including improvement of harbours and water supply.

Glasgow.

In England at an early period we find municipal bodies obtaining the sanction of Parliament for the supply of their towns with water. Gloucester appears to be first on the record, in 1541-42. There were then, and long had been, ancient conduits conveying water to the city. As those had decayed, the Mayor and Dean of Gloucester were jointly authorized to renew them and dig for springs.[2] The Act is of interest as the earliest of its kind, and also for its carefully-drawn compensation clauses, in case of injury to private owners.[2] Two years afterwards, the Corporation of London obtained similar powers.[3] The recital to the Act declares that theretofore the city of London had been abundantly furnished with water by ancient conduits; but as the supply had failed,

Water supply.

By Corporation of Gloucester.

London.

[1] 1 Geo. I. c. 44.

[2] 33 Hen. VIII. c. 35.

[3] 35 Hen. VIII. c. 10; and see *post*, Chap. "London Water Supply."

Sir William Bowyer, the Mayor, calling to his aid "divers grave and expert persons," had found plentiful springs at Hampstead Heath and other places, and had devised means of conveying this water to the city at the charge and cost of the Corporation. The clauses protecting landowners are more elaborate than those in the Gloucester Act, and show the growing respect paid to vested interests. According to both statutes the two Corporations had then and long before recognized it to be their duty to furnish the townspeople with a good supply of water, not charging rates for it, but allowing it to be taken at the public fountains by all comers. Private enterprise in this direction was a later development. Sir Francis Drake brought water by the Leet from Dartmoor to Plymouth under the authority of an Act of 1585.[1] Sir Hugh Middelton carried out in 1613 powers which Parliament had granted to the Corporation of London in 1606-7.[2] Municipal authorities, therefore, who have in recent years taken over the water service from private companies have only returned to the old ways.

Land reclamation and drainage.

The protection or reclamation of land by embanking and draining, and the inclosure of commonable or waste land, have been frequent subjects of public as well as private legislation, and form an important chapter in the industrial development of the kingdom. Early law and custom, going back far beyond the time of legal memory,[3] threw upon holders of marsh lands the obligation of keeping up sea walls, paying special rates assessed for that purpose by conservators of their choice.

Commissioners of Sewers.

The same functions were discharged in other districts, under statute, by Commissioners of Sewers, whose name now suggests very limited duties, but who were formerly charged with the protection of low-lying lands from inundation by sea or river.

[1] 27 Eliz. c. 20.

[2] 3 Jas. I. c. 18, and 4 Jas. I. c. 12, which amended and explained the previous Act, providing that the New River might be conveyed through a trunk or vault of brick or stone, as well as by an open trench or cut.

[3] The law and custom of Romney Marsh are mentioned as "ancient and approved" in an Ordinance of Hen. III.—650 years ago.

Their statutory history begins in 1428.[1] There was a ceaseless struggle to keep out the sea, especially on the east coast. Four statutes were passed in the reign of Queen Elizabeth, and two in that of James I., to provide for the maintenance of sea banks in Norfolk alone.[2] The draining and "inning" of marsh land in Kent, Essex, Durham, the Isle of Ely and elsewhere, were also subjects of general legislation in 1601.[3]

James I. took great interest in the reclamation of land in the fen districts, and in 1606-7 induced Parliament to pass an Act for draining "certain fens and low grounds within the Isle of Ely, subject to hurt by surrounding, containing above 6,000 acres, compassed about with certain banks commonly called the Ring of Waldersea and Coldham." This was the first Act which authorized reclamation in the fens; but, as we shall see, it was preceded by several local statutes of the same kind applying to drowned land on both banks of the Thames, and in its general framework it followed those precedents. There were three adventurers who undertook to finish the works in seven years, their reward being two-thirds of the area drained; but this grant was to be void if the lands were again overflowed.[4]

The Ring of Waldersea.

The story has often been told of reclamations and embankments in the fens—by Roman legionaries; by bishops,[5] abbots, and monks; and by Vermuyden and his Dutch workmen, persevering, though not always with success, in spite of local jealousies and financial difficulties.[6] By their labours, and

The Fens and Bedford Level.

[1] 6 Hen. VI. c. 5, a public Act, followed by two others of the same reign, and by a long list of statutes in succeeding reigns.

[2] 27 Eliz. c. 24 *et seq.*

[3] 43 Eliz. c. 11.

[4] 4 Jac. I. c. 13; 15 Car. II. c. 17, s. 45. In 1562 a bill was read a first time, and referred to a Committee in the Commons, enabling the Bishop of Ely to part with the manor of Waldersey, in order to repair the banks; but it did not pass. (1 Com. J. p. 64.)

[5] Morton, Bishop of Ely, in the reign of Henry VII., constructed a cut for navigation, as well as for drainage, between Peterborough and the sea, forty miles long, and deserves the title of being the first canal maker in England.

[6] Dugdale, whose History of Embanking and Draining was published in 1652, was employed in the drainage of the great Bedford Level in 1643.

those of Rennie and other engineers in later times, under the authority of private Acts, "680,000 acres of the most fertile land in England, or an area equal to that of North and South Holland, have been converted from a dreary waste into a fruitful plain."[1]

River floods. Mischief done by river floods was hardly less serious than that wrought in the fens and upon the coasts, though rivers subsided, while the sea never gave back what it once swallowed up. Around London the Lea and the Thames were great offenders.

The Thames. The floods from which the low-lying lands within the Metropolis still occasionally suffer are really attempts by the river to regain possession of districts which it formerly always overflowed at high tides. And Vermuyden in the fens only carried out upon a larger scale, some 100 years later, reclamations similar to those which his countrymen had already accomplished or attempted in or near London. An Act of 1535-6,[2] recites that one Cornelius Vanderdelff, of Brabant, had at his own proper costs and charges Stebonhythe. "workmanly and substantially inned and fenced" 130 acres of ground beside St. Katherine's and near the Tower, formerly overflowed by the Thames, and had received one-half Wapping. of the ground for his pains. Eight years later, Vanderdelff was allowed by Parliament to reclaim and inclose Wapping Marsh.[3]

Plumstead and Erith. Statutes of 1530-1[4] and subsequent years describe the drowning of Plumstead and Erith marshes through "the outeragiousness of the river of Thames," and breaches made by it in the embankments. Rates were imposed upon adjacent landowners, in proportion to their acreage, to keep up the walls and drain off the river; and the day of payment was duly proclaimed as of wont in the parish church of Plumstead. These methods were ineffectual, and in 1566, John Baptista Castilian, one of the grooms of the Chamber,

[1] Smiles's "Drainage of the Great Level;" Lives of the Engineers, Vol. I. p. 68.

[2] 27 Hen. VIII. c. 35.

[3] 34 Hen. VIII. c. 9.

[4] 22 Hen. VIII. c. 3.

with other persons, were authorised to reclaim Plumstead Marsh, receiving one-half of the land in return.[1] The works were to be completed within eight years, but they could not be finished within that period by reason of "the huge charge," and because also, "during the time of restraint between this realm and the Low Countries, workmen most fit for that purpose could not be had by any means." In 1580-1, therefore, eight years more were assigned for this reclamation. The draining of Greenwich marshes was sanctioned in 1546.[2] On the opposite bank the river made repeated breaches at Dagenham and Havering; and again Parliament more than once supplied the requisite authority to curb and restrain this restless and unceasing foe.[3]

Greenwich.

Dagenham and Havering.

While these efforts were made to win land from sea or river, or secure it from encroachment, Parliament was called upon to aid in a work which, for good or for evil, did still more to change the face of the country. The inclosures which in 1549 chiefly occasioned Kett's rebellion in Norfolk,[4] and so many risings in Devonshire and other parts of England, were unauthorized by private statute. It was not till 1606-7 that Parliament sanctioned the first of a long line of Inclosure Acts. They were few in number, however, until the latter half of the 18th century. In the 25 years from 1719 to 1743, there were 87 of these Acts; in the 25 years from 1770 to 1794,

Inclosures.

Kett's rebellion.

[1] 8 Eliz. c. 22.

[2] 37 Hen. VIII. c. 11.

[3] 13 Anne, c. 20.

[4] "The occasion of this rebellion was because divers lords and gentlemen who were possessed of abbey lands, and claimed large commons and waste grounds, had caused many of these commons and wastes to be inclosed, whereby the poor and indigent people were much offended, being thereby abridged of the liberty they formerly had to common cattle, &c. on the said grounds to their own advantage. The Lord Protector (Edward Seymour, Duke of Somerset, uncle to Edward VI.) . . . caused a proclamation to be published that all persons who had inclosed any lands that used to be common should lay them open again before a fixed day, on a certain penalty for not doing so. This so much encouraged the people in many parts of the realm, that, not staying the time limited in the proclamation, they gathered together in a tumultuous manner, pulled up the pales, flung down the banks, filled up the ditches, laying all such inclosed lands open as they were before." (3 Blomefield's History of Norfolk, p. 222.)

there were 1,058. They became even more numerous after 1800, but at the close of the war began to decrease in number. As we know, they are now rare, and are watched with extreme jealousy in and out of Parliament. But between 1719 and 1845, more than 4,100 Inclosure Bills became law.[1]

Common and commonable lands to be distinguished.

These inclosures, so formidable in numbers, so vital in their influence upon the oldest and largest English industry, are sometimes treated as though they applied entirely to commons, the waste land of the manor, over which the lord and his tenants had concurrent rights. They require, however, to be carefully distinguished. Two statutes of the thirteenth century[2] authorized lords of manors to "approve"[3] land from the waste, provided they left sufficient pasture to the commoners, and did not infringe upon any common rights of turbary, piscary or estovers.[4] It was under these general Acts, though probably without much regard to the conditions and qualifications they imposed, that the lords made the inclosures which led in 1549 to so much popular discontent and tumult.

Statutes of Merton and Westminster.

Commonable lands.

Besides, however, the commons or wastes not granted by the lord to freeholders, or reserved for cultivation as part of his own demesne, there were all over England large tracts of commonable lands, both arable and pasture, held in severalty for certain defined periods, at the end of which they became subject to common rights.[5] In most English

Common or open fields.

[1] See Appendix B, No. I.

[2] Statute of Merton, 1235 (20 Hen. III. c. 4); Statute of Westminster, 1285 (13 Edw. I. c. 46); confirmed and explained by 3 & 4 Edw. VI. c. 3.

[3] The old form of "improve." It here meant improvement by inclosure. In the two earlier statutes cited, "approvement" is the word used; in the Act of Edw. 6, "improvement."

[4] Rights to cut turf, to fish, or to lop or cut wood for fuel, and for repairs of buildings, implements of husbandry, and hedges or fences.

[5] Pastures were called "stinted" where the commoners were only allowed to turn upon them a limited number of sheep or cattle. The common rights of pasturage on commonable lands were of limited duration, as for the whole year, save when the lord used them for his cattle; or from the time when the hay was carried until Candlemas; or, in the case of Lammas lands, for eight months after Lammas-day (August 1). One person had the right to mow; others, the right to stock lands after the first hay-crop.

parishes, the arable land was cultivated in what were called common or open fields, generally divided in acre or half-acre strips, each strip separated by a balk of turf, sometimes narrow, sometimes broad, and overgrown with bushes.[1] Adjoining strips were not necessarily owned or cultivated by the same person. Freeholds and copyholds were sometimes intermixed. It was as if each strip had been awarded by lot,[2] without the least regard to union of properties or convenience of cultivation, so that one man's holdings were "scattered about on all sides of the township; intermixed and, it might almost be said, entangled together, as though some one blindfold had thrown them about on all sides of him."[3]

Common rights after harvest.

After harvest, these arable or meadow lands became commonable; usually only to persons having severalty rights. They were often unstinted; there was no limit to the stock which the commoners might turn upon them. In other cases, after the severalty crops had been removed, the lands were commonable to the whole parish, or to a class of persons residing there. In some parishes, there was a person called a flock-master, who, during certain months of the year, could turn his sheep on all the lands of the parish. His right was

[1] Even now, in the Isle of Axholme, where small peasant freeholds exist side by side, a deep furrow is often the only division to mark a separate ownership.

[2] This, indeed, was the primitive method adopted in settling the choice of shifting severalties, hereafter mentioned, upon the old lot meadows. (Commons' Committee on Inclosures, 1844; Minutes of Evidence, p. 27.) So in an Act of 1535–6, providing for the partition of reclaimed land at St. Katherine's, near the Tower of London, certain parcels are to be divided by lot. 27 Hen. VIII. c. 35.

[3] Seebohm's "English Village Community," p. 7. In a map showing about one-third of the Hitchin open fields, as they existed early in the present century, there were 289 scattered pieces of land, owned by 48 persons. Taking into account the remaining two-thirds, "each owner probably held in the parish three times as many" separate parcels of land. Mr. Seebohm sees in these open fields of arable land "the common fields of a village community or township under a manorial lordship." A similar system prevailed on the Continent; and Sir Henry S. Maine finds its counterpart, and possibly its origin, in the village communities of India. The same analogy, pointed out by an earlier authority on Indian history, was mentioned before the Committee of 1844. (See p. 16, note.)

occasionally restricted by custom, in order that farmers might be able to put in a wheat crop; but, in the absence of such custom, farmers could sow no wheat without having made a bargain with him for shutting up the fields set apart for such crops. In cases where the area of commonable land was small and the right of depasturage unrestricted, the whole herbage was often destroyed in a fortnight or three weeks.[1]

Shifting severalties.

Another curious incident affecting these severalty and commonable lands was that, in many cases, the severalties shifted from year to year, or from time to time, according to the manorial custom. What was called a "pane" of land might contain forty or sixty different lots. If they were pastures, the occupier of lot one took lot two the next year, and so went through the lots in regular rotation. If the lands were arable, the severalty did not shift annually, but periodically, according to the rotation of crops. Many commonable meadows had their own peculiar customs regulating changes in the severalty ownership.[2]

[1] Commons' Committee on Inclosures, 1844, p. 27: evidence of Mr. Blamire, one of the Tithe Commissioners, and formerly M.P. for Cumberland, a gentleman of great ability and experience, and a high authority upon this class of questions.

[2] Ib. p. 27. By an old military custom, formerly prevailing also in parts of the Continent, on days appointed for the shift of severalties, the best man of the parish used to take possession of any lot he preferred. If his choice was challenged, there was a fight for possession; the survivor, or the better man, took the first lot, and the right of first ownership to each succeeding lot was settled by the same method, when it was thought worth a contest (Blamire). Another Tithe Commissioner, the Rev. Richard Jones, derived the origin of lot meadows from the primitive custom among village communities of so distributing and redistributing the small area of their cultivated land, when hunting was their chief means of subsistence. In support of this view he cited Mr. Mountstuart Elphinstone's account of the Eusofzye tribe of Afghans, in whose villages the lands are re-distributed every ten years; other Afghan tribes interchange lands in the same way, at periods varying from one to twenty years. "Mr. Elphinstone quotes, in a note, well-known passages from Tacitus and Cæsar, which show the same custom to have prevailed among the ancient Germans. When Volney wrote it had not become quite obsolete in Corsica. The Saxon ancestors of the English, there can be little doubt, brought this custom with them from their native forests." (Minutes of Evidence, p. 150.)

Intermixed lands.

It is difficult to exaggerate what must have been the prejudicial effect upon English husbandry of such intermixtures of lands and varying tenures. Some good results these may once have had, in establishing common interests and knitting together communities, or the system would not have lasted so long. But it checked enterprise. It made effectual drainage all but impossible. It required a stated three-course rotation of crops and fallow, and a dead uniformity of cultivation, for all must sow the same crops and at the same period. By its mingling[1] of small properties in different hands, each property difficult of access, and situated sometimes at no inconsiderable distances from each other, the waste of labour must have been enormous. Even if we assume in early times a system of joint or co-operative ploughing, we can hardly assume common barns.[2] Each owner, when individual property became well defined, must therefore have provided necessary buildings; and cartage from outlying parts of his land must have been a heavy burden. The strips were so narrow that to plough the land across them was out of the question.

Injurious effect upon agriculture.

Ming lands.

When improved methods of cultivation became known, turnips or clover could not be grown on these narrow strips except by arrangement, and in the majority of common fields no such arrangement could be made. In every third year a crop was not attempted; there was nothing but dead

[1] Hence "ming" lands, meaning mingled or intermixed commonable land, the exact position of which had been lost sight of. When a person owning in severalty a small quantity of commonable land let it to another person with whose holding it was intermixed, the separating balks were sometimes ploughed up, and in time, through neglect on one side and perhaps design on the other, it became impossible to identify the locality of these lands. (Blamire, ib. 31, 32.)

[2] At Hitchin there was a common herdsman who drove the cows of the township daily to the common, or, at the proper season, to the Lammas meadows (Seebohm, p. 13); and, according to a custom of the manor, the rectors of Hitchin were bound to provide a common bull to go with the township cows. (Presentment of Court Leet, 1821; ib. p. 448.) The author assumes that, in this and other cases, after the crops were ingathered, these open arable lands became commonable, and the sheep of the township were pastured upon the strips and balks at will (p. 13).

fallow, with sheep overrunning the whole field. The want of proper manure was very marked; and sheep-folding or stocking during the commonable period supplied this want inadequately. Slovenly farming, too, on a few strips might produce weed crops, which sowed themselves all over the field, marring any attempts at better husbandry. Under such conditions the proper cultivation of the soil was impossible; and the evil was made more serious, because these intermixed and commonable lands were the best in the kingdom in point of natural fertility, and for this reason, no doubt, were first chosen to be put under the plough. Notwithstanding this natural fertility, competent witnesses estimated that, as a general rule, chiefly through want of drainage, a fourth part of all the open arable land in the country was totally unproductive.[1]

Natural fertility of open arable lands.

Their unproductiveness.

This slight sketch will show that radical changes were necessary at the period of the Inclosure Acts before any material improvement could be effected in English agriculture,[2] and will also help to explain the descriptions of land

Inclosure necessary to improve agriculture.

[1] Commons Committee on Inclosures, 1844. Among much evidence to the same effect see that of Mr. T. Smith Woolley, land agent and assistant tithe commissioner, pp. 237, 294; and Mr. Blamire, p. 18. Even in 1844 the area of these lands was still very extensive, especially in those parts of the kingdom that were first cultivated. Mr. Blamire produced tithe maps of three places, taken hap-hazard:—1. Township of Barmby-on-the-Marsh, Yorkshire, total contents of township, 1,692 acres; number of parcels of open land, 1,152, containing 1,015 acres, giving an average size of 3 roods 23 perches; old inclosures of severalty lands, 352, containing 677 acres. 2. Parish of Chinnor, Oxfordshire, total contents, 2,688 acres; number of parcels of open land, 2,340, containing 2,016 acres, giving average size of 3 roods and 18 perches; inclosures of severalty lands, 61, containing 672 acres. 3. Parish of Cholsey, Berks, total contents, 2,831 acres; parcels of open land, 2,315, containing 2,327 acres, an average size of about an acre; inclosures of severalty lands, 160, containing 504 acres. The maps in the Appendix to the Commissioners' Report show clearly the extent and nature of this curious intermixture of interests.

[2] Eighty years ago a simpler form of the open field system, under the name of "run-rig," survived here and there all over Scotland. Traces of it exist in the Highlands, and there are well-known remains of its strips and balks in Wales. The run-rig system is still prevalent in some parts of Ireland. (Seebohm, p. 15.) Dr. John Smith, in his "View of the Agriculture of

to which those Acts in turn applied. Warned, no doubt, by the serious disorders which followed the inclosures made after the Reformation, Parliament was at first careful to interfere as little as possible with common rights, and expressly exempted all wastes which were open to commoners throughout the year. It also chose to proceed, not, as hitherto, by general legislation, but by private bills, introduced upon petitions which pointed out the hindrances to cultivation existing in particular districts.

First Inclosure Act, 1606-7.

The first Inclosure Act was sanctioned in 1606-7.[1] It applied to certain manors, lordships and parishes in Herefordshire—Marden, Boden, Wellington, and others. There the preamble described husbandmen as much distressed, because, their fields and meadows being open after sickle and scythe, "all sorts of people turn in their cattle, and within very short space eat up all the grass thereof, so that the oxen and kine of the husbandman are in danger to starve in summer, and of necessity in many places must be sold away for want of wintering meat." For remedy of this complaint, the Act allowed each owner and farmer to inclose and keep in severalty, freed from rights of common, as much land as, when added to his then existing severalty holding, would make up a clear third part of his entire holding. The other two parts were to continue subject to the same uses and custom as before. Ancient waste and commons open all the year were not to be affected. What appear from their

Stock-raising hindered on commonable land.

Argyleshire," published in 1805, remarks (p. 31) upon the obstacles to improvement presented by tenancies in run-rig, "which is nearly the same as in common." The dwellings of these small holders were set together, he says, so that they might unite in self-defence, if any raids were made upon their property. The Duke of Argyle had, it seems, for a considerable time been changing the run-rig system on his estates by giving each tenant a severalty holding, and removing houses and buildings to the land with which they were connected. Other landlords had begun to follow this example (p. 69), so that the change appears to have been made in Scotland without special legislation. This might well be, since there were few small freeholds, and rights of common after harvest were probably restricted to holders of commonable land.

[1] 4 Jac. I, c. 11..

description to be Lammas lands were also exempted. Moreover, if persons inclosed under the Act, their rights of common in the commonable fields and pastures were to abate in proportion. In other words, if they took from the common stock, their share in what was left suffered accordingly.

This measure is remarkable for extreme caution, lest it should bring about any undue encroachment upon common rights. No attempt is made to re-apportion intermixed properties, and little is done towards the promotion of good husbandry. It probably illustrates, however, with sufficient accuracy, the condition of most rural parishes early in the seventeenth century. First, a proportion of land, both pasture and arable, but only, it would appear, a small proportion, was farmed in severalty, not being commonable. Much more than two-thirds of each holding consisted of open fields, commonable "after sickle and scythe." It may be assumed from the terms of the statute that varying customs as to the period or other incidents of commoning applied to these open fields. As in other cases, we may also assume the ordinary mingling of properties and consequent inconvenience in cultivating them. Then there was the waste or common, open all the year round, and, according to nearly universal testimony in more recent times, harbouring sheep-stealers, poachers, squatters and idlers, and often doing much more harm than good in a parish.[1]

Rural parishes, 17th century.

Social effect of commons.

A private statute of 1664[2] confirmed the inclosure and improvement of Malvern Chase; and with a view to the growth and preservation of timber for ship and house building, Parliament set apart, amongst other forests, portions of the forest of Dean, and two thousand acres in the New

[1] This is a mild way of putting much evidence given by competent witnesses in 1844. According to them, commons as a rule encouraged idleness, produced ill-feeling and sometimes violence when commoners drove off each others' stock, harboured disease among cattle, made poor, sour pasture for want of drainage, gave no profitable employment to anybody, and were a nuisance instead of a boon in many parishes.

[2] 16 Car. II. c. 8.

Forest, to be held in severalty for this purpose.[1] But more than a hundred years passed before the example set in Herefordshire was followed by holders of land elsewhere. Even then the reign of Anne only produced two inclosures: one, in 1709, for Ropley Commons, in Hants, "and for improving the old disparked park of Farnham," in Surrey and Hants;[2] the other in 1713, "for parting and inclosing two great open common fields, and a large open greensward Common Down," in the manor and parish of Thormarton, alias Farmington, Gloucester.[3] In the reign of George I. sixteen inclosures were sanctioned; the next reign produced 226; under George III. the number rose to 3,360; in the ten years of the succeeding reign it fell again to 220.[4]

Inclosures in 18th century.

Only a small proportion of these Acts were printed.[5] It is easy, however, from their titles, and from the petitions for each bill, preserved in the journals of Parliament, to gather their general scope. We find, then, as might have been expected from the rude conditions of agriculture already described, that the partition and inclosure of open and commonable fields had even more to do with the promotion of such bills than a wish to appropriate commons. Of thirty-four inclosures authorized in the year 1760, only six apply exclusively to wastes; the rest are either for dividing and inclosing open fields and commonable lands only,[6] or include both open fields and wastes. Towards the end of the eighteenth century, there was an increase in the proportion

Partition of open fields, the main object of Inclosure Acts.

[1] 35 Hen. VIII. c. 17; 20 Car. II. c. 3 (as to the forest of Dean); 9 & 10 Will. III. (as to the New Forest). See also 29 Geo. II. c. 36, and 31 Geo. II. c. 41, authorizing, by consent, the inclosure of parts of any commons, in order to plant and preserve trees fit for timber and underwood.

[2] 8 Anne, c. 6.

[3] 13 Anne, c. 7.

[4] Committee on Inclosures, 1797; *post*, p. 25; and see App. B. No. II.

[5] That is, in the Statute-book. Many were printed privately by the parties, but are very difficult of access.

[6] *E.g.*, an Act (33 Geo. II. c. 5) for dividing and inclosing the open and common fields, common meadows, common pastures, common grounds, and commonable lands within the parish, township and liberties of Sulgrave, in the county of Northampton.

of commons brought into cultivation. Taking, however, hap-hazard, the year 1801, open and common fields, either alone or jointly with wastes, are the main objects of legislation in more than three-fourths of the inclosures then sanctioned. We must remember, therefore, that of the four thousand Acts and upwards, so often mentioned in proof of the wholesale taking of commons, many did not apply to commons at all, while the greater number only dealt with them as part of a still more pressing and necessary measure, the division and discharge from commonable rights of intermixed open fields, which were then held in severalty.

This legislation released English agriculture from bonds which had long crippled its growth and limited production; and, perhaps, at no period of English history were social changes so vital brought about by the intervention of Parliament. Modified by custom and by law, the effect of feudal tenure had gradually been to confer on rural communities in this country limited rights in the greater part of the soil. Absolute ownership was an exception. Land, whether cultivated or waste, was held, in part, for the common good. By inclosures privately authorized, and by general legislation in aid of them, these rights of the community were to a large extent extinguished, and exclusive rights in the soil given to individuals. It was the substitution over the whole country of individual interests in place of common interests, as a means of furthering agriculture at a period when increased production was sorely needed. Like most other revolutions, this had an unfavourable side. It is true that the rights of the community over commonable lands as well as over wastes were often of little practical value. It is also clear that, as long as these rights existed, cultivation must be hindered, and the land could not bring forth its due increase.[1] On the other hand, it is not clear that proper equivalents were

solute
nership
stituted
common
rests in
d.

[1] Besides increasing the growth of cereals, inclosures were credited, no doubt truly, with a large increase, both in the number of stock sent to market, and in their weight. In proof of the latter position, the following curious returns of Smithfield Market, showing the average weight

given for the rights thus taken away;[1] and advocates of agrarian reform may derive some of their strongest arguments from the common property once existing in the soil, and the changes wrought by inclosures.

In 1773, a public statute provided for the inclosure of wastes and commons, under conditions, but aimed chiefly "to promote the growth of corn,"[2] by improving the course of husbandry in open fields. For this purpose, occupiers of severalty holdings were to appoint a field master, or field reeve, to superintend the cultivation of the various parcels, "in such course of husbandry" as might be agreed; but the rules so adopted were not to continue in force for any longer term than six years, or two "rounds," according to the ancient and established course in each parish. It is a curious picture of the joint and several agriculture which was possible in English parishes a hundred years ago; settled according to pattern by a majority of occupiers, like affairs in the vestry; and carried out under the supervision of an elected officer, perhaps the parish clerk or senior churchwarden. 13 Geo. III. c. 81.

A brief reference to three other public statutes is necessary, in order to fill in this rough sketch of the legislation affecting inclosures. In 1801, an Act, generally associated with the name of Sir J. Sinclair,[3] set forth the provisions to be thenceforth adopted, by reference, in private Inclosure Acts. Sir J. Sinclair's Act, 1801.

of stock sold there, are given in Dr. Clarke's Survey of Great Britain, published in 1801:—

	Ox	*Calf*	*Sheep*	*Lamb.*
In 1710 ..	370 ..	50 ..	28 ..	18 lbs.
,, 1796 ..	800 ..	148 ..	80 ..	50 lbs.

[1] It must, however, be borne in mind that these common rights depended, strictly, in almost all cases upon the ownership of land or houses in the parish. The 13 Geo. III. c. 81 (cited *supra*), for improving the cultivation of open or common fields, allowed severalty holders to put an end to rights of common upon setting apart from common fields an equivalent area for the exclusive use of cottagers and others entitled. It also allowed the ploughing-up of "balks, slades or meers," which "do often lie very inconveniently interspersed among the arable lands in common fields;" but other common land was to be substituted for the area so brought into tillage. Parliament evidently intended to protect the rights of commoners, but provided no effectual machinery for that purpose.

[2] Preamble to 13 Geo. III. c. 81.

[3] 41 Geo. III. c. 109, supplemented by 1 & 2 Geo. IV. c. 23.

This statute did not dispense with the necessity for applications to Parliament in each case when inclosures were sought; but it abridged the length of private Bills, made their provisions clear and uniform, and in the history of private legislation is memorable as the first Consolidation Act.

mmon
ılds In-
sure Act,
36.

Another statute, passed in 1836,[1] had for its object "the improved cultivation of open and common, arable, meadow and pasture lands and fields now intermixed," and provided that, in any parish, these lands, including the untilled balks in arable fields, might be divided and inclosed, with consent of two-thirds of the proprietors in number and value, without the expense of an application to Parliament. This Act applied to commonable lands only, and a considerable extent of these lands was divided and inclosed under its provisions. In parts, however, it was defective, for it required assents which frequently could not be obtained, and it gave no power to allot hedge-greens, worple-ways, and pieces of waste which often lay intermixed with the commonable land.[2]

ıeral In-
ıure Act,
5.

The last general Act to which we need here refer is that passed in 1845,[3] "to facilitate the inclosure and improvement of commons and other lands now subject to rights of property which obstruct cultivation, and the productive employment of labour." Another object was to promote the division and exchange of intermixed lands. Commissioners were appointed to investigate each case. At first, in the case of commonable lands, subject to several ownership, the Commissioners were authorized to sanction inclosures without the intervention of Parliament; but the exercise of quasi-legislative powers by any other body, even though appointed by Parliament itself, is sure in time to arouse a natural and wholesome jealousy in Parliament;

[1] 6 & 7 Will. IV. c. 115; and see 3 & 4 Vict. c. 31.

[2] Commons Committee of 1844, Minutes of Evidence, p. 363. Worple-ways were the occupation roads leading to and through the common fields.

[3] 8 & 9 Vict. c. 118.

and in 1852, statutory powers were made necessary for all inclosures whatever under the Act of 1845, and its many successors.[1]

Effect of inclosures.

A question naturally occurs—what has been the practical effect of this long series of measures, public and private, begun six hundred and fifty years ago, and not even yet exhausted? The area of land taken from wastes and "approved" by lords of manors, under the statutes of Merton and Westminster, cannot even be approximately estimated. But judging from the wide extent of open and common fields and meadows in the beginning of the eighteenth century, it may be stated with confidence that such approvements rarely conferred exclusive rights in the land; that, in effect, they did no more than convert common into commonable land. Later inclosures, as we have seen, went much farther; and when they were brought about by private Acts, we, for the first time, obtain some records of the acreage so disposed of. In 1797, a Committee of the House of Commons on waste lands gave the following table of inclosures sanctioned in about a century, with the extent of land inclosed:—

Acres inclosed, 1702-96.

Reigns.	*No. of Acts.*	*No. of Acres.*
Anne	2	1,439
George I.	16	17,660
George II.	226	318,778
George III.	1,532	2,804,197
		3,142,074

The only other information on this point is contained in a Parliamentary Return of 1843,[2] which specifies all Inclosure Acts passed since the year 1800. Unfortunately this return is imperfect on two heads, as to which precise details would have been useful. What the House of Commons asked for was information confined to commons and waste lands not held in severalty. But the return does not distinguish between Acts referring solely to commons and wastes, and Acts com-

[1] 15 & 16 Vict. c. 79.

[2] Commons Return, 325 (1843). See also *post*, App. B., No. II.

prising commonable lands held in severalty; all Inclosure Acts passed since 1800 are given indiscriminately. The House of Commons also asked to be furnished with "the estimated number of acres" inclosed in each case. These particulars, again, could not be supplied, because out of 1,996 inclosures sanctioned between the years 1800 and 1842, the area in 634 cases was not stated in the Acts.[1] We can only, therefore, make an approximate estimate by assuming that the average area of each inclosure was the same. In this way, taking into account the return of 1797, and later information, it appears that between the years 1702 and 1876 the area of land inclosed in England and Wales was not far short of seven millions of acres, or nearly one-fifth the whole acreage, cultivated and waste.[2]

Total area inclosed, 1702-1876.

[1] In Appendix B., No. II., will be found a list of all inclosures since 1800 in Surrey and Middlesex, and also of any inclosures in other counties where the area exceeded 5,000 acres.

[2] See Appendix, ib. As no totals of acreage are given in the return of 1843 the figures have involved a laborious calculation. Lord Macaulay (History, c. 3) says, but without citing authorities, that the area inclosed under the authority of the four thousand Inclosure Acts "exceeds, on a moderate calculation, ten thousand square miles." This would be 6,400,000 acres, a result substantially agreeing with that come to in the Appendix, which extends over a somewhat longer period. "How many square miles which formerly lay waste have, during the same period, been fenced and carefully tilled by the proprietors without any application to the Legislature, can only be conjectured. But it seems highly probable that a fourth part of England has been, in the course of little more than a century, turned from a wild into a garden." In 1685 the arable and pasture land was not supposed to amount to much more than half the area of the kingdom (37,319,000 acres). Lord Macaulay does not mention the open field system of cultivation which was then general, and his vivid description of the extent of uninclosed country in the seventeenth century must be taken subject to this reservation:—"From Abingdon to Gloucester, a distance of forty or fifty miles, there was not a single inclosure, and scarcely one between Biggleswade and Lincoln. At Enfield, hardly out of sight of the smoke of the capital, was a region of five-and-twenty miles in circumference, which contained only three houses and scarcely any inclosed fields. Deer, as free as in an American forest, wandered there by thousands. The red deer was then as common in Gloucestershire and Hampshire as they now are among the Grampian Hills." (History, c. 3.) The open and common fields would account adequately for the fact also mentioned that "in the drawings of English landscapes, made in that age for

All these inclosures were the result of private legislation; we can form no estimate of the extent of land inclosed under the authority of general Acts, or without any authority. Again, however, we must bear in mind that the land thus inclosed was not wholly common land taken from the waste of the manor, and for the first time brought into cultivation, but included a large proportion of arable and pasture land, owned by individuals, though subject to common rights for certain periods of the year.[1]

Since the Commons Act, 1876, when Parliament imposed more stringent conditions upon inclosures, the number sanctioned has been small. But between 1845 and 1876, 600,000 acres of common and commonable lands, an area exceeding that in each of seventeen English counties, was thus redeemed from common and waste, and divided among 26,000 separate proprietors, "a far larger and more varied body of landowners than that of any county in England."[2] The total estimated value of the wastes inclosed during this period amounts to 6,140,000*l.*[3] The extent of common lands still

Area inclosed, 1845–76.

the Grand Duke Cosmo, scarce a hedgerow is to be seen, and numerous tracts, now rich with cultivation, appear as bare as Salisbury Plain."

[1] The two descriptions of land inclosed were not distinguished even after the appointment of the Commissioners in 1845. A return made by them in 1869 stated that out of 614,800 acres inclosed since 1845, three-fifths, or 368,000 acres, might "be assumed" to be waste of a manor, or subject to rights of common not limited by number or stints; but this assumption is "merely a rough estimate," for the Commissioners "appear to have kept no separate account." (Commons Committee of 1869 on Inclosure Act, 1845; Report, p. 3.) Under the Act of 1845, allotments for the labouring poor and for purposes of recreation could only be made out of waste inclosed, not out of common fields. The Commons Act, 1876 (39 & 40 Vict. c. 56), gave further effect to the legislation of 1845 as to allotments for recreation grounds and field gardens. See also 2 Will. IV. c. 42, and Allotment Extensions Act, 1882 (45 & 46 Vict. c. 80).

[2] By another process, however, during the same period of thirty years, the agricultural area of the country has been reduced by more than the extent thus acquired for production, for 489,000 acres have been absorbed by towns and 200,000 acres by railways, together nearly 700,000 acres. (Report of Inclosure Commissioners, 1876, given *post*, App. B., No. III.

[3] Thirty-second Annual Report of Inclosure Commissioners, 1877; *post*, App. B., No. IV., where will be found an attempt to classify the owners among whom these small properties have been distributed.

uninclosed, in England and Wales, was estimated in 1874 at 2,632,000 acres. This included 264,000 acres of open and common fields. Reckoning these fields, it was supposed that more than a million acres were still available for improvement, or "apparently cultivable," while a million and a-half of acres were "unsuited to cultivation."[1]

wn Improvements.

While the country was thus cared for, if not always by wise, at least by abundant legislation, the growing population and importance of towns required attention at a still earlier period. Of any provision for sewerage there is little or no trace until the latter part of the seventeenth century. Paving was the first and most frequent subject of local legislation;

ving of eets.

and by universal testimony it was badly needed. The early method of mending streets in London and Westminster was to make each owner repair in front of his property or dwelling "up to the channel running in the middle of the street."[2]

lais.

Outside the metropolis, one of the first Improvement Acts in the statute book applies to Calais, where, in 1548, the streets were "foul, ruinous and noisome," "full of pits and slowes" (sloughs), and dangerous to passers by. The mayor and aldermen were therefore required to pave the four high streets; but owners were responsible in other parts of the town, and were subject to penalties upon default. The Corporation, too, were supposed to be capable of neglecting their share of this work; if they did, they were to be fined by the lord deputy.[3] The paving was meant to be at the cost of owners only. Lessees and occupiers might therefore "abate and retain" so much of the rent as they had

[1] Thirty-first Annual Report, ib. 3; and see App. B., No. III.

[2] In London "the pavement was detestable, all foreigners cried shame on it. The drainage was so bad that in rainy weather the gutters soon became torrents. . . . Till the last year of the reign of Charles II. most of the streets were left in profound darkness. . . . The machinery for keeping the peace was utterly contemptible. There was an act of Common Council which provided that more than a thousand watchmen should be constantly on the alert in the city, from sunset to sunrise, and that every inhabitant should take his turn of duty. But the Act was negligently executed. Few of those who were summoned left their homes." (Macaulay's History, c. 3.)

[3] 2 & 3 Edw. VI. c. 38; *post*, Chap. "Local Authorities."

spent in paving. Default was to be presumed on presentment by the verdict of twelve indifferent men, or by three sufficient witnesses. To diminish the liability of fire, a period was limited after which, instead of thatch of straw or reed, all houses were to be roofed with tiles or slates. Other local Acts in England followed the same lines.

Taverns restricted.

Restrictions on the number of taverns in certain specified towns are met with in 1552-3, where there is a recital that taverns had become a common resort for "mis-ruled persons," and had been "of late newly set up in very great number in back lanes, corners, and suspicious places." They were forbidden, therefore, except in cities and towns, upon licences granted by the municipalities. Care was also taken that such licences should be granted only with due form and solemnity, under the common seal; and they might be revoked at pleasure. The allotment of taverns to particular towns is curious.[1]

Killing cattle in towns.

Among nuisances less excusable were the killing of cattle and the scalding of swine in towns. A petition in 1488-9, from "your poor subjects and orators," parishioners of St. Faith's and St. Gregory's, in the city of London, tells a pitiful story of "corrupt airs engendered" there from this cause, to the grievous harm of many citizens "of right honest behaviour," but, above all, to "the jeopardous abiding" of the king's most royal person, when he came to the cathedral. For the space of sixteen years, complaints had been continually made by citizens, and by canons and petty canons of the cathedral, "unto divers mayors and aldermen," and no remedy had been found. Happily, the petitioners did not apply to Parliament in vain; the nuisance was prohibited,[2] though under penalties which seem too moderate, even allowing for the higher value of money three hundred and fifty years ago.

Rebuilding ancient mansions in towns.

In the reign of Henry VIII. a series of Acts passed giving remarkable powers to municipal authorities. The wars of

[1] 7 Edw. VI. c. 5; *post*, Chap. "Local Authorities."

[2] 4 Hen. VII. c. 3.

succession had probably led to some confusion of ownership in towns. Country gentlemen, too, had become unwilling, or through want of means unable, to maintain their ancient residences in the chief provincial centres.[1] The result was, in the year 1540, "that many beautiful houses of habitation" had "fallen down decayed, and at this day . . . do lie as desolate and vacant ground;" while other houses were feeble and like to fall, and pits, cellars and vaults were uncovered and dangerous.[2] It is a sad picture of the disaster and ruin which war and confiscation had brought upon so many well-to-do English families during the troubles of the fifteenth century. Municipalities complained with reason that these ruined mansions were "a hindrance and impoverishment" to them; that the abandoned sites became no man's land, disturbing to the peace of the community. Parliament listened to these representations, and prescribed a certain period within which owners should restore their houses. In their default, the lords of whom the land was holden were allowed a further time to do so. If they, too, failed, local authorities might enter and do all necessary works. Every considerable provincial town in England was thus dealt with.

nicipali- authoı to re- ld.

Were there no other sources to draw upon, local statutes would supply in general outline no inadequate picture of the rise of provincial towns in population, wealth and influence, as well as of the gradual transfer of industries

n works in sex.

[1] In that age, still more rarely than in the later times mentioned by Macaulay, a country gentleman did not take his family to London. "The county town was his metropolis. He sometimes made it his residence during part of the year. At all events, he was often attracted thither by business and pleasure, by assizes, quarter sessions, elections, musters of militia, festivals and races. There were the halls in which the judges, robed in scarlet and escorted by javelins and trumpets, opened the king's commission twice a year. There were the markets at which the corn, the cattle, the wool, and the hops of the surrounding country were exposed to sale. There were the great fairs to which merchants came from London, and where the rural dealer laid in his annual stores of sugar, stationery, cutlery and muslin. There were the shops at which the best families of the neighbourhood bought grocery and millinery." (History, c. 3.)

[2] 27 Hen. VIII. c. 1; 32 Hen. VIII. c. 18; 33 Hen. VIII. c. 36; and see *post*, Chap. "Local Authorities."

from southern to northern counties. In Sussex, Kent and Surrey a prosperous business was carried on from very early times in the smelting of iron ore and its manufacture. In 1548 no less a personage than Lord Seymour owned iron works in the forest of Worth, in Sussex; and southern foundries at a later period furnished the ships of Drake, Hawkins and Frobisher with the cannon and the shot which they used so well. In 1653 there were forty-two forges and twenty-seven furnaces in the Weald of Sussex.[1] But the iron mills, as they were called, suffered frequent discouragement from Parliament. They were stinted of fuel, on the ground that they destroyed the growth of timber. Their owners were hardly treated, because the heavy traffic to and from their mills injured the roads. In 1580-1 the Legislature went much further, by providing that no new iron-works should be established within twenty-two miles of London, "or within four miles of the hills called the Downs, between Arundel and Pevensey, or of Pevensey, Winchilsea, Hastings and Rye."[2] Finally, it was enacted, under heavy

[1] "Sussex was then the Wales and the Warwickshire of England. Foreign countries sought eagerly for its cannon, its culverines and falconets. Its richly decorated fire-backs and fantastic andirons were the pride of lordly mansions. London sent here for the railings that went round its great cathedral; Sussex ploughshares, spuds, and other agricultural implements and hardware were sent all over the kingdom." Glimpses of Our Ancestors in Sussex, p. 64; where also is quoted, from the inventory taken of property belonging to the Lord High Admiral Seymour when impeached in 1549, an account of certain furnaces and forges possessed by him at Worth, with the number of workpeople, "founders, ffylers, coleyers, miners, gon-founders," &c. The works include:—"Ffyrste, a duble ffurnace to cast ordynaunce, shotte or rawe iron, with all implements and necessaries apperteyning unto the same. Item, there ys in sowes of rawe iron, cxij. Item, certain pieces of ordynaunce, that is to say, culverens, xiv.; demi culverens, xv. Item, of shotte for the same, vi. tone, v. cwt. Item, ordynaunce carried from thence to Southwarke and remayneth there as foleth: sakers, xv., ffawkons, vj., mynnyons, ij., and dim. culverens, j. Item, in shotte for the same, xiij. tonne. Item, in myne or ower at the furnace, redye receved, xvjc. lode. Item, in myne, drawen and caried, Mixx. lode. Item, in whode, viijc. corde." The last of the Sussex iron works, at Ashburnham, was closed in 1807.

[2] 23 Eliz. c. 5.

penalties, "that no new iron mill, furnace, finery, forge or bloomery" should be erected within the three counties except upon land already so occupied, or able to furnish of itself a sufficient supply of fuel.[1]

Cloth manufacture in Kent, &c.

No greater encouragement was given to the manufacture of cloth, which was followed with some success in the home counties, where fuel was plentiful. An Act of 1566[2] prohibited the export of cloth made in the counties of Kent and Suffolk, unless it was wrought and dressed. The Act was well intended, and was passed, as the preamble declares, "at the most humble suit," and "for the better employment and relief," of "great multitudes" of the Queen's subjects "using the art and labour of cloth working;" but it did more harm than good to this southern industry. In the districts in which they existed, gigge-mills[3] seem to have been in no greater favour than iron works. Bills for the removal of both were not uncommon, as though they were public nuisances; and one of the earliest recorded instances of the employment of counsel in the House of Commons is against a Bill promoted in 1562, apparently by the Corporation of Guildford, to put down an iron mill near that town, when the learned Plowden, one of the worthies of the Middle Temple, appeared at the bar for the mill-owner with Mr. Serjeant Harper, "showing great reasons why the Bill might be rejected."[4]

Manchester.

At the same period, Manchester had some reason for complaint. In 1549 a Bill for a water conduit in that town was passed by the House of Commons,[5] and was read a first time in the Upper House, but did not receive the Royal Assent,

[1] 27 Eliz. c. 19; 39 Eliz. c. 19. See also 1 Eliz. c. 15, forbidding the use of oak or other timber trees for fuel in iron works within a certain distance of the sea and of certain rivers, including the Thames, with a view, no doubt, of reserving such timber for shipbuilding. This Act, passed in 1558-9, excepts iron-works in the county of Sussex, the Weald of Kent, and parishes of Charlwood, Newdigate and Lighe in Surrey. In its later legislation Parliament was not so forbearing.

[2] 8 Eliz. c. 6.

[3] For the teazling of cloth.

[4] 1 Com. Journals, January, 1562.

[5] 1 Com. J., p. 16.

as Parliament was prorogued a few days afterwards.[1] A bill "to repeal a statute against Manchester cottons" failed to pass the House of Commons in 1562-3.[2] The journals of Parliament afford no further information as to the objects of either bill, or the reasons why both were unsuccessful. It was not till 1759 that, upon making "proper recompense" for vested interests, Manchester was freed[3] from the ancient feudal custom which required its inhabitants to grind their corn at certain water-mills, to swell the manorial revenue. When, in 1775, Parliament vested in James Watt "the sole use and property of certain steam-engines, commonly called fire-engines, of his invention,"[4] it was plain that southern England, depending upon its forests for fuel, must see its manufactures gradually supplanted by districts which Nature had provided with boundless stores of latent heat and force.

Increase of wealth and population in the north.

The inventions of Arkwright, of Hargreaves and Crompton, about this time, all tended to increase wealth and population in Lancashire and Yorkshire, whose manufacturers could now afford to smile at the feeble legislation which 200 years before was vainly sought in aid of Manchester cottons. The rise of the iron manufactures in Wales and Staffordshire, the processes which Wedgewood perfected, and the art he developed in the Potteries, again had no corresponding material successes in the south, where, apart from London, old industries decayed, and population dwindled or remained stationary. Something had been done at this time, as we have seen, to improve roads in all parts of the kingdom, and to make rivers more easily navigable. But manufacturing enterprise in the north of England was still cramped from want of better and cheaper means of transit, especially for heavy goods. By help from Parliament these means were now to be supplied.

Canals.

By what seems an easy transition from the river im-

[1] 1 Lords' J., p. 387.
[2] 1 Com. J., p. 68.
[3] By 32 Geo. II. c. 61.
[4] 15 Geo. III. c. 61.

provements already noticed, though separated from the first River Improvement Act by an interval of nearly 200 years, we come to canals, which were meant as substitutes for rivers, or to supersede them; to the engineer who was taunted for building in the air;[1] and the Duke who lived on 400*l.* a year, that he might venture his fortune in a great commercial enterprise. The Bridgwater canals,[2] though not absolutely first in date, were daring experiments both in engineering and finance; but, perhaps, their chief interest now is, that the scheme from Longford Bridge to Runcorn, there joining the Mersey, first raised in Parliament the question of competition with existing statutory undertakings. Not even the battles of the gauges, or any of the great territorial struggles between our most powerful railway companies, were more hotly contested than the Duke of Bridgwater's attack in 1761-2 upon the monopoly of the Mersey and Irwell navigation.

Competition with river navigations.

A summary of the various stages of the Duke's bill, taken from the journals of Parliament, will show how cumbrous and slow was the procedure upon private bills a century and a quarter ago. The Duke's petition for a bill was read in the House of Commons on November 14, 1761.[3] It was referred to a Committee of forty-one members specially

Procedure on private bills, 1761-2.

[1] According to the accepted story, Brindley's plan for an aqueduct carrying the canal and the ships navigating it thirty-nine feet above the river Irwell was submitted to an engineer, who, after visiting the site, said:—"I have often heard of castles in the air, but never before was shown where any one of them was to be erected." Nevertheless, the Duke of Bridgwater did not cease to trust the self-taught millwright; and the Barton aqueduct spanned the Irwell without mishap, carrying barges high above the masts of vessels in the river.

[2] An Act to make the Worsley brook navigable into the Irwell passed in 1737; but these powers lapsed. The canal, which brought the duke's coals from Worsley to Manchester, was constructed under Acts passed without opposition in 1759-61. For the water-way to Runcorn, connecting Liverpool and Manchester, the duke obtained the sanction of Parliament in 1762.

[3] 29 Com. J., p. 15 *et seq.* Petitions for and against private bills appear to have been then read to the House at length.

named, together with all the members for the four counties of Lancaster, Chester, Stafford and Salop, and for the Principality. As though such a Committee was not numerous enough, eleven more members were added subsequently. On November 26, the Committee reported that they had heard evidence in support of the petition, and had come to a decision in its favour. This report, according to the usual practice, was read to the House twice, by the member who fathered the bill and by the clerk at the table. Leave was then given to introduce the bill. It was brought in on December 18, read a first and second time, and referred to a Committee of seventy-six members specially named, together with the members for the counties of Lancaster, Chester and Stafford.

Committee on petition in Commons.

Report.

Bill brought in and committed.

The House did not adjourn for the Christmas holidays until December 23, meeting again on January 19, 1762. On the day following, and again on January 23 and subsequent days, opposing petitions were presented and read to the House. The chief opponents, proprietors of the Mersey and Irwell Navigation, claimed that they had spent "£18,000 and upwards" in improving the navigation, and alleged that "great part of their respective fortunes" was at stake, praying to be heard by counsel before the Committee. Accordingly the House directed the Committee to hear these and other petitioners, and also to "admit counsel to be heard at the same time" on behalf of the bill. There were nine opposing petitions: five from landowners whose property would be taken or injuriously affected; one from traders of Warrington, interested in the navigation between that town and Manchester, who complained that streams now flowing into the Irwell between those points would be diverted for the purposes of the canal, and navigation would thereby be stopped during the summer season; another from traders and others of Manchester who were of opinion that the Mersey and Irwell navigation was "sufficient to perform all the carriage required." On the

Hostile petitions.

other hand three petitions from traders and others in Manchester, Liverpool, Stockport and other places set forth the advantages which would arise to trade from the proposed extension of the canal to the Mersey below Warrington, especially as the Duke had undertaken the conveyance of goods and minerals upon the new water-way without charging any higher rate than that authorized upon his existing canals, namely, a maximum rate of half-a-crown per ton.

Rehearing by House.

With a view apparently to secure a rehearing of the case before the whole House after its adjudication by the Committee, certain petitions for and against the bill were ordered to lie on the table, until the Committee reported; and counsel were then to appear at the bar if the petitioners thought fit.[1] On February 5, a day was appointed for receiving the Committee's report, and the House also ordered that counsel should be then heard. At the usual time of meeting, nine a.m., the Committee's report was considered, the House having previously resolved to continue the discussion after two o'clock, the hour then fixed for laying aside private, and proceeding with public business. The report was again favourable to the bill. Counsel had been heard for opponents as well as promoters; the Committee had "examined the allegations of the bill and found the same to be true;" and they now returned the bill to the House with certain amendments. Then counsel and the parties were called in; the Committee's report was read for their information, together with the reserved petitions; and the real struggle began. That before the Committee had been but a preliminary skirmish.

Effect of reading bill a second time.

In and before the year 1762, the second reading of a private as of a public bill seems to have been regarded as at least a qualified approval of principle.[2] The subsequent reference to a Committee was chiefly with a view to the examination of details, not preamble, though there were obvious methods of defeating the bill, by delay or by striking out a vital clause. Conformably with this practice, the burden of proof in Com-

[1] 29 Com. J., Feb. 3, 1762.

[2] See *post*, Chapter on Procedure.

mittee rested, not, as now, with promoters, but with petitioners, who therefore opened their case and submitted evidence before the promoters were called on. Such was the course followed both in Committee and at the bar of the House of Commons in dealing with the Duke of Bridgwater's Canal Bill in 1762. Parts of five days were occupied with arguments and evidence, the proceedings beginning after the House had disposed of other business, but being generally protracted until seven o'clock, then the fixed hour of adjournment. The temper of the House may be judged from the fact that there was a division upon a motion that one of the witnesses for the bill "be allowed to be asked further questions touching the expense of the former navigation made by the Duke of Bridgwater," when it was resolved in the negative by 120 votes to 73.

Counsel and evidence heard in House.

Counsel for the bill summed up their evidence on Feb. 26. Two counsel, one representing the Mersey and Irwell navigation, the other the landowners, were then heard "by way of reply."[1] Comparing the practice with that of to-day, the positions of the parties were, therefore, exactly reversed, the petitioners having the last word. Then the parties were directed to withdraw, and the House divided on a motion "that the amendments made by the Committee to the bill be read a second time," which was carried by 127 to 98 votes. On March 4, the amendments made by the Committee were further discussed and three divisions were taken, all in favour of the bill. An adjournment was moved and negatived, but at length agreed to. On the next day the remaining amendments were disposed of, and the bill was ordered to be ingrossed. It had still to undergo a severe ordeal. On March 8, both sides rallied their forces for a last battle, and the bill only passed by a narrow majority of 133 to 114 votes; a signal proof of the vigour and tenacity with which vested interests were then able to defend themselves in Parliament.[2]

Debates and divisions in House.

[1] 29 Com. J., Feb. 26, 1762.

[2] Mr. Smiles says one of the debates lasted eight hours, and one witness was under cross-examination

Bill in the Lords.

In the House of Lords the bill had an easy time. The Duke of Bridgwater and his brother-in-law, Earl Gower, were appointed upon the Committee, personal interest being then no disqualification for such service; and there is no record of division or debate.[1] The men who had been the benefactors of their day by improving river navigation were now thoroughly beaten. They might have been somewhat consoled had they known that the projectors of the new waterways were in their turn to suffer from a competition still more formidable and ruinous.

Rival canal schemes.

Besides the issues of competition and interference with vested interests, canal legislation first brought prominently before Parliament the rivalry of engineers and projectors, and their efforts to gain possession of districts or to keep out intruders. The success of the Bridgwater canals not only as works of engineering, but as remunerative investments for capital, led to many imitators. Backed by Earl Gower, the Earl of Stamford, the Duke of Bridgwater, Josiah Wedgewood and many other landowners and manufacturers, Brindley

Grand Trunk, or Trent and Mersey Canal.

planned the Grand Trunk Canal for uniting the Mersey, the Trent and the Severn, and thus providing a connected system

four hours and a half. He gives ("Lives of the Engineers," I. 376) some amusing extracts from Brindley's diary:—"Ad a grate division of 127 for t' Duk; 98 Nos; for t' Duk 29 Me Jorete." And again:—"4 March, ade bate at the Hous with grate vigor 3 divisions the Duk carred by Numbers evory time a 4 division moved but Noos yelded." And on another day the House "wont thro the closos." Party feeling seems to have run high for and against the bill. The Earl of Derby's son, Lord Strange, a representative of Lancashire, led the opposition of the "old navigators," as they were called, and mustered the Tories in aid; while the Duke and his friends, being Whigs, had the support of that party. As Brindley put it, "the Toores mad had [made head] agane ye Duk." (Ib. 372.)

[1] 30 Lords' Journals. In Brindley's words, the bill passed the other House "without opposishun." This untutored genius, whose powers of invention and adaptation, and engineering skill have never been surpassed even among English engineers, received for his highest wage from the Duke of Bridgwater three and sixpence a day while carrying out these great works, and for the greater part of the time only half-a-crown. His personal expenses were on the same modest scale. The canal which he planned and executed came to yield an income of 80,000*l.* a year. (Smiles, ib. 402.)

of transit for goods between the west and east coasts, between the Humber ports on the one side, and Liverpool and the British Channel ports on the other.

Opposition in Parliament.

So bold a scheme was sure to threaten existing interests, as well as to arouse local jealousies by the course it took, and the country it omitted to accommodate. Cheshire thought itself neglected in comparison with Staffordshire and the Pottery districts. The River Weaver Navigation Trust found their revenue in danger, and headed a formidable opposition. A tunnel 2,880 yards long,[1] sometimes burrowing 200 feet below the surface through unknown strata, was supposed in itself to be an audacious proposal sufficient to wreck the whole scheme; and this was one of several such works, to say nothing of 76 locks, and nearly 170 aqueducts, large and small. The engineering was condemned, the estimates were pulled to pieces, and alternative schemes suggested. Parliament was appealed to, both on sentimental and utilitarian grounds,—because the country would be disfigured; because, as Dr. Johnson complained, canals would interfere with country seclusion, and make living dear where it used to be cheap, by taking rural produce to crowded centres; because they would displace the pack-horses and waggons which had hitherto served for transport across country;[2] lastly, because they would injure the trade of towns if carried through or near them. To conciliate the vested interests which raised

[1] Through Harecastle Hill, near Newcastle-under-Lyme.

[2] There was the same opposition to the flying coaches, which, about the year 1669, began to run between London and the chief provincial towns. "It was vehemently argued that this mode of conveyance would be fatal to the breed of horses, and to the noble art of horsemanship; that the Thames, which had long been an important nursery of seamen, would cease to be the chief thoroughfare from London up to Windsor, and down to Gravesend; that saddlers and spurriers would be ruined by hundreds; that numerous inns, at which mounted travellers had been in the habit of stopping, would be deserted and would no longer pay any rent. On these grounds it was gravely recommended that no public carriage should be permitted to have more than four horses, to start oftener than once a week, or to go more than thirty miles a day." (Macaulay's Hist. c. 3.)

this local opposition, the canal was so laid out as to pass some of the larger towns at a distance.[1] In short, the arguments used sixty years later against railways were anticipated, with as little justification for prejudices or fears of injury; with the same bitter but unavailing regrets, too, by towns which at their own request were left out of the new line of communications.

Bill passed, 1766.

After weighing the merits of the rival bills which came before it, Parliament, in 1766, sanctioned Brindley's scheme. It was probably the most expensive contest which up to that time had ever been waged at Westminster. Promoters had now full opportunities of learning what was meant by preliminary expenses. Wedgewood alone subscribed 1,000*l.* to this fund;[2] liberal and brimful of energy in this as in every other business, when he thought he saw his way clearly. In truth, the cheaper and quicker transit of raw materials, of manufactured goods and agricultural produce,[3] stimulated industry, increased population, and created wealth, so as to justify the most sanguine expectations of the first canal projectors; while Parliament, by its legislation in furtherance of canals and of

[1] Smiles's "Lives of the Engineers," I. 436, where is cited a curious passage from a prominent advocate of inland navigation, that, in order to meet these objections, "no main trunk of a canal should be carried nearer than within four miles of any great manufacturing and trading town; which distance from the canal should be sufficient to maintain the same number of carriers, and to employ almost the same number of horses as before." ("Advantages of Inland Navigation," by R. Whitworth, 1766.)

[2] Ib. 433.

[3] "The cost of carrying a ton of goods from Liverpool to Etruria, the centre of the Staffordshire Potteries, by land-carriage was 50*s.*; the Trent and Mersey reduced it to 13*s.* 4*d.* The land-carriage from Liverpool to Wolverhampton was 5*l.* a ton; the canal reduced it to 1*l.* 5*s.* The land-carriage from Liverpool to Birmingham, and also to Stourport, was 5*l.* a ton; the canal reduced both to 1*l.* 10*s.* Thus the cost of inland transport was reduced, on the average, to about one-fourth of the rate paid previous to the introduction of canal navigation. The advantages were enormous: wheat, for example, which formerly could not be conveyed a hundred miles, from corn-growing districts to the large towns and manufacturing districts, for less than 20*s.* a quarter, could be conveyed for about 5*s.* a quarter." (Quoted, ib. 447, from Baines's "History of the Commerce and Town of Liverpool.")

agriculture, probably contributed more largely to the national prosperity than by any other group of public or private measures passed towards the close of the last century.[1]

Canals long delayed in England.

In this supply of inland water communication, there was no cause for national boasting. Great Britain was, indeed, more favoured with navigable rivers than most other nations; and where rivers were not navigable, some of them, as we have seen, had been made so by art. But we lagged far behind most other European countries in supplementing these natural resources, and in acting upon Brindley's reported opinion, given before a Parliamentary Committee, that the chief use, even of a navigable river, was to feed canals.[2] Nor does the mileage of our canals, or the capital invested in them, seem considerable, even relatively to the trade which they were to accommodate, and the national wealth, at the period when they were made.[3] We shall see presently how

[1] Over a hundred canal Acts were passed before 1800; there was a canal mania in 1791–4, like the railway mania which broke out on a larger scale in 1845–6; and eighty-one canal and navigation Acts were passed in those four years alone.

[2] "At a time when Holland had completed its magnificent system of water communication, and when France, Germany, and even Russia had opened up important lines of inland communication, England had not cut a single canal." Smiles's Preface, p. 7. In this, as in other supposed triumphs of modern civilization, China was many ages in advance of Europe, and probably of the canals of Egypt and the East.

[3] Authorities differ both as to the existing canal mileage and capital. Mr. Calcraft, Assistant Secretary of the Board of Trade, puts the mileage of canals and inland navigations in the United Kingdom at 3,029, exclusive of the Caledonian Canal and the larger river navigations. (Commons' Committee on Canals, 1883, App. p. 214.) Mr. Taunton, C.E., estimates the canals proper at 2,671 miles; river navigations, 1,141 (ib. 228); Mr. Lloyd at 4,050 for England and Wales alone (ib. 209); Mr. Conder, C.E. (ib. 111), makes the length of canals in England and Wales 4,332 miles, with a capital of 19,145,000*l.*; and a total inland navigation in the United Kingdom of 7,336 miles. Mr. Smiles (at p. 464 of the work already quoted) sets the canal mileage at 3,100, constructed at a cost of about 50,000,000*l.* For this account of capital no authority is given, and it largely exceeds the most recent estimates. The disturbing element in the calculation is, no doubt, the river navigation trusts or companies; it is not always easy to separate these from canals properly so called. The supposed capital of 19,145,000*l.* is founded on returns from canal companies given in Com. Paper 184 (1870), which does not, however, allow for the large sums spent on

badly they fared under the stress of competition with railways. In part, however, their present forlorn condition is due to faults of construction.

Faulty construction.

Instead of being walled, wholly or partially, according to the most approved modern methods, nearly all the old canals were made with sides sloping towards the middle. They were, in fact, "enlarged ditches, with a top-water of thirty feet, or thereabouts, and a bottom of fourteen feet, having inclined slopes on either side."[1] The result was a constant

Silting.

tendency to silting, which seriously reduced the carrying capacity of a canal. Thus, from London to Liverpool, viâ the Shropshire Union Canal, the maximum through load is twenty-five tons; whereas it is alleged that, if the waterway were in a really good condition, thirty tons could be carried.[2] Another great hindrance to inter-communica-

Difference in dimensions of canals and locks.

tion by canals is the want of a common gauge. In England and Wales, it is stated, hardly two canals correspond in this respect. Upon the canals by which the Derbyshire coal used to be brought to London, the Grand Union was only seven feet wide, half the width of most of the other waterways; the average width of the locks along the entire route was fourteen feet six inches; but there was one link in the navigation that had only seven feet; and some of the locks had no more than a depth of three-and-a-half feet of water on their sills. The effect of varying gauges in a through communication is to limit the carrying power to that of the smallest area. Upon the route just mentioned, it is stated that the practical result is a maximum through-carrying capacity of twenty-four tons; whereas, for a considerable portion of

works by many companies out of annual revenue during their prosperous days. (Commons' Committee on Railway Amalgamation, 1872, evidence of Sir T. H. Farrer.)

[1] Commons' Committee on Canals, 1883; evidence of Mr. Lloyd, p. 14.

[2] Ib. p. 13; and see an excellent digest of the evidence given before the Committee of 1883, at pp. 1196-9, vol. 2, part 2, of Burdett's Official Intelligence of the Stock Exchange. The canals owned by railway companies appear to be in the worst condition. One is mentioned which, instead of carrying 25 or 30 ton vessels, will now only carry vessels of 17 tons.

the route, the gauge will admit a boat of from sixty to eighty tons burden.[1] Economy of transit is obviously incompatible with these conditions. The necessity of a uniform gauge on canals, as on railways, is now clear enough. We need not wonder that, in the eighteenth century, Parliament was no wiser than the engineers, and had not learnt this lesson.

Railways.

The rise of our railway system, so far as it is to be gathered from the statute book, forms an almost continuous record with that of our canals. Smooth tracks of stone, or grooved rails of wood or iron, had long been used to take coals or other minerals from the pit's mouth to the place of shipment. Statutory powers were not sought for these ways. When they traversed land not belonging to the owners, a way-leave was rented or leased; if they crossed a public road, the consent of the local authorities was generally obtained without much difficulty.[2]

First sanctioned as feeders to canals.

Some old Canal Acts allowed the adventurers to make railways as feeders to the canals for goods or minerals. For example, in 1776, the Trent and Mersey Navigation Company were authorized to make, among other railways, one from Froghall to Caldon, in Staffordshire;[3] and in 1802 further railways were sanctioned, extending from various points on their canal to Lane End, Hanley and Burslem. These lines, the preamble recited,[4] would be "of great advantage to the extensive manufactories of earthenware established at those

[1] Lloyd, Evidence, p. 6 *et seq.*; Burdett, p. 1197.

[2] Nicholas Wood, a pupil of the elder Stephenson, in his Practical Treatise on Railways, says the worn track or rut in roads first suggested these aids to traction, and dates their adoption between 1602 and 1649. Roger North, in a passage often quoted, describing a visit paid by his brother, Lord Guildford, to Newcastle when on circuit (in 1676), mentions both wayleaves and railways:—"When men have pieces of land between the collieries and the rivers, they sell leave to lead coals over their ground, and so dear that the owner of a rood of ground will expect 20*l.* per annum for this leave. The manner of the carriage is by laying lines of timber from the colliery down to the river, exactly straight and parallel, and bulky carts are made with four romlets fitting these rails, whereby the carriage is so easy that one horse will draw down four or five chaldron of coals, and is of immense benefit to the coal merchants."

[3] 16 Geo. III. c. 32.

[4] 42 Geo. III. c. 25.

places, and of public utility." The Act accordingly sanctioned a railway from the company's canal at Stoke-upon-Trent to Lane End; another from their canal at Etruria to Hanley; and a third from Dale Hall to Burslem, "for the passage of waggons and carriages, of forms and constructions, and with burthens suitable to such railways, to be approved of by the company," at the tonnage rates specified. In 1792 the Monmouthshire Canal Navigation Company were authorized "to make railways or stone roads" from their canals to various iron works and mines in the counties of Monmouth and Brecknock; and in 1802 they obtained powers to make further railways.[1] The Grand Junction Company were authorized in 1793 to make a railway at Blisworth, and "a collateral communication by cuts, railways or other ways and means" between their canal at Gayton, to join the navigation of the river Nene at Northampton.[2] There are several other instances of like powers granted by Parliament before the close of the eighteenth century. Thus the disasters which afterwards befel so many canal companies arose from a means of transport which they were the first to adopt under statute, and prove the utility of. The weapon which pierced them came from their own armoury.[3]

Surrey Iron Railway Company, 1801.

A southern county was first in promoting what may be called a pure railway bill. In 1801, twenty years before the Stockton and Darlington Act was passed, Parliament sanctioned a railway from Wandsworth to Croydon, with a "collateral branch to Carshalton," for "the advantage of conveying coals, corn and all goods and merchandize to and from the metro-

[1] 32 Geo. III. c. 102; 42 Geo. III. c. 115. The Act of 1792, like other Acts obtained at this period, gave the company wide powers of making railways, waggon-ways, or stone roads, to any existing or future iron-works, limestone quarries, or coal mines within eight miles of their canals. Another section enabled the company to charge a toll for cattle, not conveyed on the railway, but driven along it, as upon an ordinary highway.

[2] 33 Geo. III.

[3] One canal owner, at least, foresaw what a dangerous rivalry might spring up. The Duke of Bridgwater, when congratulated by Lord Kenyon on the success of his new waterway, replied—"Yes, we shall do well enough if we can keep clear of those cursed railroads."

polis."[1] Two years afterwards another railway was sanctioned from Croydon to Reigate, with a branch from Merstham to Godstone Green.[2] Both companies met with difficulties, and came to Parliament in 1806 for fresh powers to complete their respective schemes.[3] A railway was sanctioned from Swansea to Oystermouth in 1804.[4] Several similar Acts, promoted by what were called Iron Railway Companies, were passed at this period.

Croydon, Merstham and Godstone Iron Railway, 1803.

The Act of 1801, upon which the rest of this early railway legislation is framed, follows the canal precedents in their provisions for managing the company's affairs, for raising share and loan capital, and for compensating landowners. Only the use of horse power was contemplated. The tracks, when laid down, were meant, like canals, for general use by carriers and freighters. The companies did not provide rolling stock; any persons might construct carriages adapted to run upon the rails; and if these carriages were approved, certain maximum tolls applied to any freight they might carry. Judged by the standard of that day, these tolls were not excessive. Between Wandsworth and Croydon, chalk, lime and other manures were charged at the rate of threepence per ton per mile; coals, corn, potatoes, iron and other metals, fourpence; and all goods not specified, sixpence. Passenger traffic was not expected or provided for, although a precedent might have been found for such traffic on canals, as the Duke of Bridgwater had added to his revenue by conveying passengers in horse-boats between Manchester and Worsley.

Haulage.

Tolls.

Such was the first Railway Act, passed at the beginning of the century with little notice by Parliament or people, but now a social landmark, prominent even in that stormy period of history. Fortunately it was not with railways as with canals. British engineers and projectors were the first to invent and apply the new mode of transport, and afterwards had

[1] 41 Geo. III. c. 33.

[2] 43 Geo. III. c. 35.

[3] 46 Geo. III. c. 93, and c. 94. The Surrey Iron Railway Company were dissolved, and obtained powers to sell their undertaking in 1846 (9 & 10 Vict. c. 333).

[4] 44 Geo. III. c. 55.

their reward, finding their skill and capital sought for similar enterprises all over Europe. Yet in England one man was before his time, and met with the usual fate of projectors for whose plans the world is unprepared. No sketch of railway development and legislation would be complete which omitted to notice the remarkable prescience shown by a poor mechanic of Nottingham named Thomas Gray. Tracks and rails, when used in collieries or as auxiliaries to canals, had proved the great advantage of these methods in easing draught by lessening friction. In 1801, and subsequent years, the process had been carried a stage further by giving to railways an independent existence. Meanwhile Murdock, Trevithick, Blenkinsop, George Stephenson and others had tried, not yet very successfully, to construct steam coaches to run upon high roads or upon rails.[1] Gray put together these plans and experiments, expanding them into a project for a general system of iron railways to convey passengers as well as goods, with steam for the motive power.

omas Gray, Notting-m.

s plan for neral iron lway.

Gray's proposals were published in 1819, but before that time he had been pressing them in vain upon public notice in the shape of memorials to members of the Government, and letters to corporations and capitalists. There are now five trunk lines from London, starting from the north of the Thames. Gray suggested six, running to the chief commercial centres, with branch lines to towns not situate upon the main arteries of communication. Waggons and coaches might be propelled upon the rails by steam, or drawn by horses. Incalculable advantages to the country would arise from this new employment for labour:—the cheapening of raw materials, provisions, fish and vegetables; the quicker carriage of mails; the saving in horseflesh, and in wear and tear of roads; the

blic bene-s expected.

[1] Trevithick in 1804 built a locomotive which ran on the Merthyr Tydvil Railway; and his "Black Billy," made in 1812 for Mr. Blackett, the Northumberland coal owner, became famous in the north. Stephenson produced a better locomotive in 1814; it was the first [illegible] with smooth-tired wheels, and drew a load of thirty tons up a slight ascent at the rate of four miles an hour.

superior speed and economy of transit both for passengers and goods. Plates and maps accompanied his work, and explained the course of each parent line and its branches. For Great Britain he thought that two thousand miles of railway would at first suffice; for Ireland seven hundred miles. His estimate of cost was six thousand pounds a mile. A total outlay of twelve millions would thus be required. The sanguine projector hardly ventured to suppose that a sum so enormous could ever be raised by public subscription. However this might be, he felt assured that the saving in horse-keep alone "would more than provide for the steam engines necessary for this new projection, as well as defraying the whole annual expense of repairs on the General Iron Railway."

Mileage and outlay.

Gray was treated as a man who saw visions, and drew his inspiration from the clouds. His advice was neglected; his idea of a general railway scouted as altogether impracticable.[1]

Gray's plan scouted.

[1] *Quarterly Review*, March, 1825. "As to those persons who speculate on making railways general throughout the kingdom, and superseding all the canals, all the waggons, mail and stage-coaches, post-chaises, and, in short, every other mode of conveyance by land and by water, we deem them and their visionary schemes unworthy of notice." The Reviewer adds a well-known passage, referring to the Woolwich Railway: "It is certainly some consolation to those who are to be whirled at the rate of eighteen or twenty miles an hour, by means of a high pressure engine, to be told that they are in no danger of being sea-sick while on shore; that they are not to be scalded to death, nor drowned by the bursting of the boiler; and that they need not fear being shot by the scattered fragments, or dashed in pieces by the flying off or the breaking of a wheel. But, with all these assurances, we should as soon expect the people of Woolwich to suffer themselves to be fired off upon one of Congreve's ricochet rockets, as trust themselves to the mercy of such a machine, going at such a rate. Their property they may, perhaps, trust; but while one of the finest navigable rivers in the world runs parallel to the proposed railroad, we consider the other twenty per cent. which the subscribers are to receive for the conveyance of heavy goods almost as problematical as that to be derived from the passengers. We will back old Father Thames against the Woolwich Railway for any sum." Yet the article was on the whole favourable to railways; supported the line between Manchester and Liverpool against the opposition of the canal proprietors; and declared that the public were interested in any competition which should force these companies to reduce rates then extremely burdensome to traders, and returning in some cases a hundred per cent. of profit upon canal outlay.

But he lived long enough to see his project carried out by private enterprise, and by piecemeal, instead of as a whole, and as a great national undertaking. Perhaps had he been told that, before the century was much older, a single company would own a greater mileage than that which he suggested for the whole of Great Britain, and that another company would raise by loan or subscription a capital eight times greater than that which he timidly asked for as the total cost of the British railway system, he, too, would have thought his informant a dreamer. As it was, the glimmering of the truth which reached him he preached to deaf ears, dying poor and obscure; and the only amends that can now be made is to preserve his memory from neglect in any record of those great industrial changes which he saw so clearly and worked for with such scanty requital.

Railways, unlike canals, independent of seasons.

One obvious advantage claimed for the new over the existing system of transport was, that it would be available at all seasons, and would not be interrupted by drought in summer, or by frost in winter. It was seen that any increase of canals was limited, in most districts, by want of a sufficient water supply. Iron railways, therefore, were put forward as substitutes for canals, where these were impracticable, or as supplemental to them where they already existed, just as canals had in their day been supported because they filled up the gaps left by rivers and river navigations. These pioneer railways, however, were of little importance in themselves, and seemed likely to have little effect upon the traffic enjoyed by canals. It was otherwise when the locomotive gradually developed into a practical means of haulage, and attracted the attention of capitalists who saw in it the promise of high dividends. Then, indeed, owners of canals became alarmed for their monopoly.

Stockton and Darlington Acts, 1821-3.

The first Stockton and Darlington Act, in 1821, followed pretty closely the provisions of the Iron Railway statutes, and aimed no higher than a horse tramway for minerals and goods; the projectors taking powers to "let to farm"

their rates, much as though they were going to make a turnpike road, and let or lease the tolls. Two years later, prompted by the success of George Stephenson's improved locomotive, they obtained fresh powers for the use of steam engines; moveable for use on ordinary gradients, fixed for use on inclines. Parliament naturally watched the new experiment with some jealousy, in the wish to protect private interests from nuisance or danger, and prohibited the promoters from taking land for the erection of stationary engines except with the owner's consent. In 1823, also, Parliament first recognized that a railway company might possibly supply haulage power, by means of the locomotives they proposed to construct and own. But the alternative use of horse or mechanical power by other persons was not excluded, for experience was yet to prove that on railways, as in States, divided authority means anarchy, and that traffic can be safely and regularly carried under no other conditions than its control by one responsible head.

Passenger traffic.

In 1823, for the first time, we find provision made for passenger traffic; but only as though it were an afterthought, mentioned in the Act with hesitation, as a possible aid, though a small one, to the main source of revenue, that from goods and minerals. No passenger carriages were to be provided by the company. They were only authorized to charge a maximum mileage of sixpence upon "every coach, chariot, chaise, car, gig, landau, waggon, cart or other carriage," drawn or used upon their line; and there was no limit upon the number of passengers in each carriage subject to this mileage rate.[1] At this period the flange, or flanch, as it is called in the first Stockton and Darlington Act, was on the rail, not the wheel; and the height of this flange was accordingly restricted when a road was crossed on the level.[2]

[1] 4 Geo. IV. c. 33, s. 22.

[2] Mr. Brunlees, C.E., describes the substitution of the flanged wheel for the flanged rail—the rail being lifted clear from the ground and the guide put upon the wheel instead of on the rail—as an organic change, which has rendered possible the great results accomplished in modern railway travelling. Among other changes

Three years passed after the first Stockton and Darlington Act before any other projectors were bold enough to appear before Parliament. In 1824, applications for two new lines were successful; but the Liverpool and Manchester bill of that year was rejected after a contest which lasted two months; the canal interest and the great landowners forming, together, an overwhelming opposition.[1] Before 1826 many prejudices against railways were removed; merchants and traders in both towns made out a strong case;[2] and the bill was then sanctioned with nine others. The company, however, were forbidden "to use or employ, or hire the use of, or permit or suffer any other person to use or employ, any loco-

Liverpool and Manchester Railway, 1826.

essential to the safety and rapidity of railway traffic, have been the enormous increase of break power, and the improved system of signalling. The latter began on the Stockton and Darlington line with a candle placed in a station window—meaning that the train was to stop for passengers; no candle meaning no stoppage—and has culminated now in a complicated apparatus of levers, supplemented by the electric telegraph, which "may be said to have reduced the element of human fallibility to as low a point as human ingenuity is capable of compassing." (Address as President of Mechanical Section of British Association, 1883.)

[1] Gray had, some years before, suggested that this line should be made as a first experiment. "All sorts of evidence were brought forward: that the railway would stop the milk of cows and the growth of grass; would poison the game; would burn down the farms; would frighten horses; would cost 270,000*l.* to get through four miles of Chat Moss; would be utterly unsuccessful, and yet would ruin the stage-coaches." (Bridges Adams' "Roads and Rails.") A civil engineer examined in Parliament was sure that no railway could be carried over Chat Moss without cutting out the bog, some 33 feet deep, throughout its whole length and filling up with other soil.

[2] Before the railway was made, heavy goods arriving at Liverpool for Manchester were first sent up the Mersey to Runcorn, a distance of about twenty miles, and thence by canal, making a total distance of fifty miles. In summer, through a deficiency of water, boats could often go only half-loaded; in winter, the navigation for weeks together was often impeded or suspended by ice. In the Mersey frequent delays occurred through bad weather and contrary winds. The average length of time for the transit was thirty-six hours; but, owing to these obstructions, goods were occasionally longer on the way by water from Liverpool to Manchester than from New York to Liverpool. ("Roads and Railways," p. 304.) To ensure expedition, cotton and manufactured goods were frequently carted by road, a distance of thirty-five miles, at a cost exceeding four or five times that charged by railway.

motive engine upon their railway within the town of Liverpool."[1]

Some years after railways had come into general use, inventors hoped to be able to compete with them successfully for passenger traffic by steam carriages running upon common roads. In 1829, Mr. Goldsworthy Gurney, who had patented a steam carriage, travelled on it from London to Bath and back, performing the last eighty-four miles, from Melksham to Cranford Bridge, in ten hours, including stoppages, with a maximum speed of between twenty and thirty miles an hour. After 1830, great attention was given to the construction of these vehicles; and, in 1832, a Committee of the House of Commons was appointed to inquire into their utility. Many scientific witnesses were examined before this Committee.[2] It was shown that steam coaches were then carrying passengers in various parts of the kingdom, and that many more were being built for the same purpose; that they succeeded in traversing "the worst and most hilly

Steam carriages on turnpike roads.

Commons' Committee, 1832.

[1] 7 Geo. IV. c. 49, s. 12. The names of the promoters of the Stockton and Darlington and Liverpool and Manchester Acts—names some of which are still honourably known in the commerce and industries of the north of England—are recorded in Appendix D.

[2] Among others, Mr. Goldsworthy Gurney, Mr. Farey, Mr. McAdam, Mr. Richard Trevithick, Mr. Davies Gilbert, M.P. (a member of the Committee, who had been President of the Royal Society), Mr. Telford, C.E., and Mr. Macneil. Trevithick, a fertile genius who too often sowed where others reaped, explained with pardonable pride the great work done by his high-pressure pumping engines in the Cornish mines and by other inventions:—"The first locomotive ever seen was one that I set to work in 1804, on a railroad at Merthyr Tydvil, which performed its work to admiration. . . . In 1804 I invented and introduced the high-pressure steam and locomotive engines, and also, in 1813, invented the iron tanks and buoys for his Majesty's navy. In 1814 I was engaged by the Spanish Government to construct in England nine high-pressure steam-engines and a mint, with pump-work and everything complete for draining the great mines of Paveo in Peru. They weighed 500 tons, in 20,000 pieces, the boilers each of six tons weight, all in single plates, and the cylinders each in six pieces, all carried up the mountains on mules' backs and put together on the spot, by which the mines were effectually drained, the ores wound up, stamped, smelted and coined. They remained in full work until the Spanish army retreated through the mines before the patriots, and on their retreat broke the engines and threw them into the engine-pits." (Evidence, pp. 63, 64.)

roads;" that an experimental carriage had run from London to Southampton, in some places at a speed of over thirty miles an hour, had "ascended a hill, rising one in six, at sixteen miles an hour, and traversed four miles of road at the rate of twenty-four miles an hour, loaded with people."

Favourable report.

The Committee were greatly impressed by the practical results to which so many witnesses testified, and reported strongly in favour of steam carriages on common roads. They were convinced that such carriages could travel at an average rate of ten miles per hour, conveying upwards of fourteen passengers; that their weight, including engine, fuel, water and attendants, might be under three tons; that they could "ascend and descend hills of considerable inclination with facility and safety," were "perfectly safe for passengers," were not, at all events need not be, if properly constructed, nuisances to the public, and would become "a speedier and cheaper mode of conveyance than carriages drawn by horses."[1]

Prohibitive turnpike tolls.

One reason for appointing this Committee was that, in various recent turnpike Acts, Parliament had been induced to sanction prohibitive tolls upon steam carriages. Thus, by the authority of various Acts, the tolls paid for a loaded stage coach on the Liverpool and Prescot road were four shillings, while twelve times that sum was charged for a steam carriage. On other turnpike trusts the proportion was even greater.[2] Two reasons were given for the imposition of these exorbitant tolls: one, the wear and tear of roads; the other, a fear lest steam carriages should drive off

[1] Commons Committee on Steam Carriages, 1832, Report, p. 15. Steam carriages were made shaped like omnibuses, stage-coaches, and even gigs.

[2] The Liverpool and Prescot Act authorized "the monstrous toll of 1*s.* 6*d.* per horse-power, as if it were a national object to prevent the possibility of such engines being used." (Ib. p. 12.) Other turnpike trust Acts based the toll on the number of wheels. On the Bathgate road a steam-carriage was charged 1*l.* 7*s.*; a four-horse coach, 5*s.* On the Ashburton and Totnes road a steam-carriage was charged 2*l.*; a four-horse coach, 3*s.* On the Teignmouth and Dawlish roads the proportion was 12*s.* to 2*l.*

post-chaises, stage coaches and other vehicles, which
ed to the trusts their chief revenue. As to the former
n, the Committee came to the conclusion that roads
not injured so much by wheels as by the feet of horses
mmon draught, so that steam carriages would cause less
and tear of roads than coaches drawn by horses, espe-
r as they admitted of greater breadth of tire than other
ıges. The Committee, therefore, recommended that any
)tional tolls imposed on steam carriages by local Acts
.d be suspended during three years; meanwhile the
moderate tolls which they suggested should be substi-
l. No legislation, however, followed the report; the
ibitory charges on several lines of road remained un-
ed; and the increasing speed, cheapness and certainty
assenger traffic on railways combined, with this dis-
ıgement, in putting an end to what seemed a promising
riment.[1]

Recommendation of Committee.

is beyond the scope of this work to enter at length into
great controversies which raged, after Parliament had
ioned the Liverpool and Manchester Railway, as to
)nary or moveable steam engines, atmospheric or loco-
ve systems of traction, and broad or narrow gauges.
details of these contests, both outside and within the
lamentary arena, may be found in many works of

ord Althorp, in 1832, proposed vy tax upon passengers con- in the steam carriages then ıg upon the ordinary highways. ıx was objected to by Mr. Hume :her members as certain to ruin .ew mode of conveyance. The nment replied that it was ne- y to treat steam carriages upon ıme footing as stage coaches, ubject to the same duties. On ccasion Mr. Spring Rice stated he Liverpool and Manchester ıd caused a loss to the revenue ır 8,000*l.* a year in the diminished duty on post-horses and stage coaches; and Lord George Bentinck, a member of the Committee on the London and Birmingham Railway bill, said it had been proved that from the same cause the revenue would lose 78,000*l.* annually if that line were made. Eventually Lord Althorp consented to exempt steam carriages from taxation, with a view to encourage an invention which, it was hoped, would prove a useful check upon the growing monopoly of railways. (14 Hansard, pp. 824, 1302, 1326.)

professional and general interest.[1] But a glance at these subjects will be necessary here to explain the proceedings of Parliament, and the progress of railway legislation.

Early forms of rail and wheel.

Parliament wisely refrained from binding the first railway projectors to adopt any specified form of rail. Whether a plank of wood or an iron plate[2] should be used; whether the rail should be laid on stone or on wooden sleepers, should be flanged or smooth, should be flush with the ground, or sunk, or project above the ground; whether the wheels should be cogged or toothed, fitting into the rail as they revolved, to prevent skidding,[3] or should offer a plain surface, guided by the grooved rail:—these were questions with which Parliament did not meddle. Each of these plans, however, had its advocates, and was in turn adopted.

Moveable or fixed engines.

As with rails so with traction. The restriction upon the use of locomotives in Liverpool had its origin not so much in the jealousy of Parliament as in the apprehensions of those who had invented locomotives, or, at least, adapted them for this new task.[4] Parliament did not prescribe any

[1] See, among others, Nicholas Wood on Railways; Smiles's Life of George Stephenson; and chapter xiv. of the Memoirs of Robert Stephenson, by Jeaffreson and Pole. I am indebted to Professor Pole's summary for much information upon the controversies mentioned in the text.

[2] Iron is said to have been first adopted on the tramways at the Colebrook Dale Ironworks, about the year 1767, when, trade being bad and the price of raw iron very low, the managers, as one way of keeping their furnaces going, "thought it would be the best means of stocking their pigs to lay them on the wooden railways, as it would help to pay interest on expenses by reducing the cost of repairing the rails; and if iron should take any sudden rise, there was nothing to do but to take them up and send them away as pigs." (Report of Commons' Committee on Roads and Railways: Evidence of Mr. Hornblower.)

[3] Toothed wheels, working with the rails like rack and pinion, were features of Blenkinsop's locomotive. It was supposed that a smooth wheel upon a smooth rail would skid, *i.e.*, revolve without giving any, or any commensurate, forward motion. Another mode of securing this forward motion was by propellers, consisting of "jointed poles, projecting from the back of the engine, and imitating on a large scale the motion of a horse's hind legs." The engine thus pushed itself along, as a boat is propelled by poling. (Roads and Railroads, p. 278.) It was soon found that natural friction between wheels and rails sufficed to prevent skidding.

[4] Up to a much later period, George Stephenson, who engineered the

specific method of propulsion, though it insisted on certain safeguards to private interests when promoters intended to employ steam. In 1821, as we have seen, the Stockton and Darlington Company left themselves free to use either horse or mechanical power. Railway projectors in 1826 showed a decided preference for locomotives, and in some cases took express powers to make and use them. The Liverpool and Manchester Act, however, is far less explicit on this point. In fact, even so late as December, 1828, what Robert Stephenson then described as "the suit between stationary engines and locomotives" was still in progress. In 1829, before the Manchester line was opened, the locomotives used on the Stockton and Darlington Railway could only, on easy gradients and at their best speed, run with a load of 70 tons behind them at a rate of about six miles an hour; and in that year two eminent engineers, appointed by the Liverpool and Manchester Board, after carefully examining these locomotives, reported in favour of fixed engines. The reasons were chiefly economical; and it is only fair to remember that they were based on the rough specimens of locomotive construction then existing, before the Rocket was planned, or the multitubular boiler and the steam-blast had shown what new speed and power might be given to locomotives. Messrs. Walker and Rastrick, who were the two inspecting engineers, thought that in any case stationary engines must be used on two inclines of 1 in 96, to which gradients they considered the locomotive system inapplicable.[1] The success of the Rocket in the famous competition at

Liverpool and Manchester line, agreed with his son in deprecating the use of locomotives in towns, on account of the danger of fire from sparks. They, therefore, advocated the use of fixed engines, with ropes. (Evidence of Robert Stephenson before Commons' Committee on Blackwall Railway Bill, May 17, 1836.) For the same reason, and for better working, the incline from Camden Town to Euston, part of the London and Birmingham Railway, nearly a mile long, and with an average gradient of 1 in 106, was worked up to the year 1844 by stationary engines and ropes. On the Blackwall line the use of ropes continued until 1849.

[1] 1 Jeaffreson & Pole, pp. 122, 123, and 294–8.

Rainhill turned the scale against fixed engines, except upon steep inclines; and further improvements in the locomotive "gradually led to the almost entire abandonment of rope traction in this country," so that "gradients which it would have been impossible for the earlier engines to surmount with a load equal to their own weight, are now ascended with ease by heavy trains at moderate speed".[1]

The atmospheric system.

The first experiment of importance with the atmospheric system of traction on railways was made in June, 1840, on a short line at Wormwood Scrubs, connecting the London and Birmingham and Great Western Railways with the Kensington Canal. The exhausting pumps were worked by a steam-engine of fifteen-horse power, and it was found that, even with the small pipe there used, a load of thirteen tons could be propelled up an incline of about 1 in 115 at a rate of twenty miles an hour, and with greater pressure a load of five tons would go forty-five miles an hour.[2]

Dublin and Kingstown line.

In 1842, the Board of Trade sanctioned the trial of the same principle on a part of the Dublin and Kingstown system, which, on account of its steep gradients and sharp curves, was considered unsuitable for working by locomotives; and a grant of 25,000*l.* was made by Parliament for the purpose of the trial. This grant was chiefly due to the influence of Sir Robert Peel, then First Lord of the Treasury, a staunch supporter of the atmospheric system.[3] The line was a single one, from Kingstown to Dalkey, and had been used for the carriage of stone for the works at Kingstown harbour. The average gradient was about 1 in 116, the steepest 1 in 57½. There was one curve of 518 feet radius, another of 700. The atmospheric tube was of fifteen inches internal diameter,

[1] Mr. Brunlees, in the Address already cited. Fixed engines and wire ropes are still used on some mountain railways, as on the St. Paulo line in Brazil, where a height of 2,500 feet has to be attained within five miles. This ascent is divided into four inclined planes; each with a gradient of one in nine feet and three-quarters, and of an average length of a mile and a quarter, and each furnished with a winding engine of 150-horse power. (Ib.)

[2] 1 Jeaffreson & Pole, p. 309.

[3] Ib., p. 311.

placed between the two rails. The steam-engine which worked the air-pump was of 100-horse power. With this apparatus it was found that thirty tons could be drawn up the incline at a speed of about thirty miles an hour, and seventy tons at about twenty miles; and, considering the difficulties of the road, these results were considered satisfactory.[1]

Chester and Holyhead Railway.

In 1844 an Act was obtained for the construction of a railway between Chester and Holyhead; and the engineer, Robert Stephenson, was asked to visit Kingstown, and consider the expediency of adopting the atmospheric system on the new line. His report, dated April 14, 1844, admitted that "the mechanical details of the apparatus employed at Kingstown had been brought to a remarkable degree of perfection." He also admitted that even the improved locomotive then in use, "as a motive power on steep gradients, is wasteful, expensive and uncertain;" that, "therefore, on a long series of bad gradients, extending over several miles, where the kind of traffic is such that it is essential to avoid intermediate stoppages, the atmospheric system would be the most expedient;" and, further, "that the atmospheric system is capable of being applied to somewhat steeper gradients, and on such gradients a greater speed may be maintained than with locomotive engines." The safety of the atmospheric system was, as he allowed, nearly perfect; but he thought that further experience would diminish the risk with locomotives.

Robert Stephenson's Report on Atmospheric System.

Adverse conclusions.

As may be supposed, notwithstanding his frank admissions, Robert Stephenson's conclusions were strongly adverse to the atmospheric system, which, as he maintained, (1) "is not an economical mode of transmitting power, and is inferior in this respect both to locomotive engines and stationary engines with ropes;" (2) "is not calculated practically to acquire and maintain higher velocities than are comprised in the present working of locomotive engines;" and (3) "would not in the majority of instances produce economy in the original

[1] Ib., pp. 311, 312.

construction of railways, and in many would most materially augment their cost." On long lines of railway, he explained, the requirements of a large traffic "cannot be obtained by so inflexible a system as the atmospheric, in which the efficient operation of the whole depends so completely upon the perfect performance of each individual section of the machinery."[1]

Croydon and Epsom line, 1844.

The champions of the two methods of traction soon came into conflict in Parliament. In May, 1844, a Committee of the House of Commons inquired into a bill for a line between Croydon and Epsom, to be worked by atmospheric traction; and Mr. Cubitt, the engineer of the new line, was supported in his evidence by Mr. I. K. Brunel and other professional witnesses. Mr. Stephenson, examined on behalf of the opponents, was of course confronted with the admissions in his report, one of which was that on a short line of railway near large towns, where frequent and rapid communication is required between the termini alone, the plan might be advantageously adopted. The Committee reported in favour of the bill, and the line was made and worked by atmospheric traction until May, 1847.

Lord Howick's Committee, 1845.

Railway Department, Board of Trade.

In 1845, as several new lines were proposed on the same principle, the House of Commons was asked to appoint a Select Committee to inquire into the merits of the atmospheric system.[2] At this period the Railway Department of the Board of Trade, in their reports upon various railway projects,[3] had declared in favour of locomotives. They admitted that the result of the atmospheric system was likely to be "an acceleration of speed in travelling, combined with the general introduction of very frequent trains and low fares;" and that the experiment at Dalkey was "to a great extent conclusive" in favour of the system, "considered as a mechanical problem," demonstrating, as it did, "that trains might be propelled by means of it at high velocities with

[1] 1 Jeaffreson & Pole, pp. 316–30, where copious extracts are given from this masterly report.

[2] Hansard, March 14, 1845.

[3] Among others, the Newcastle and Berwick and Kentish and South-Eastern lines.

safety and convenience to the public." But they added that, in judging between competing schemes, they could not assume that atmospheric traction would be a practical and commercial success; and they reported upon those schemes accordingly.

The friends of atmospheric traction believed this conclusion to be an erroneous one, and thought they would be able to satisfy Parliament that the system was not only a mechanical but a financial success. They pointed to contracts entered into with substantial firms for the Drogheda line of eighteen miles and the South Devon line of fifty-two miles, both to be worked on the atmospheric plan[1]; and declared that the cost both of working and of maintaining the two systems was greatly to the disadvantage of locomotives.[2] The motion for a Committee was stoutly opposed, but the opposition was withdrawn upon Sir Robert Peel's assent to the inquiry.

Drogheda and South Devon lines.

When the Committee met, the elaborate calculations and practical arguments against atmospheric traction, contained in Robert Stephenson's report, furnished the chief materials for the opponents of that system. Other objections were stated, such as the impossibility of making level crossings, or of having junctions with branch lines except at the principal stations; the difficulties of shunting or working traffic at intermediate stations, and of stopping trains upon a sudden emergency; the great cost of running only a few trains, as at night. Among the opposing witnesses, besides Robert Stephenson, were G. P. Bidder, Joseph Locke and Nicholson; while on the other side were Brunel, Cubitt, Samuda, Vignoles and Field. Public feeling ran high, but, on the whole, seemed to side with the views of Brunel and his school, chiefly, perhaps, on account of the superior safety of atmospheric traction and the prospect it held out of a high speed, combined with frequent trains and low fares.

Objections urged before Committee.

We can now see clearly enough that the vast expansion

[1] Speech of Mr. Shaw in proposing Committee, 78 Hansard, p. 939.

[2] Speech of Viscount Howick, ib., p. 942.

of railways and of railway traffic, and the complicated connections between various systems and parts of systems by running powers and by branches, would have been impossible with a rigid method of propulsion like that advocated by Brunel. In 1845, however, the net-work of railways that was to be spread all over the country could not be foreseen even by the most sanguine railway projectors. Meanwhile, although the Railway Department of the Board of Trade did not recognize the Dalkey experiment as affording sufficient proof of a commercial success, two experts, men of acknowledged eminence, who had been sent over as Commissioners to inspect and inquire on behalf of the Government, had been won over by proofs of its successful working.[1] The Croydon and Epsom, the South Devon and other atmospheric lines, had been sanctioned by Parliamentary Committees after lengthened inquiry; engineers high in their profession and of practical experience had faith in the system; above all, even its most determined opponents owned that, under certain conditions, atmospheric might be superior to locomotive propulsion.[2]

Views prevailing in 1845.

No surprise, therefore, need be felt that the Select Committee of 1845 reported in favour of the new system. They found that the Dalkey line had been open for nineteen months and had been "worked with regularity and safety," the few interruptions which had occurred having "arisen rather from inexperience than from any material defect of the system." They also found "that high velocities have been obtained with proportional loads on an incline averaging 1 in 115;" and this on a line which, from its curves and gradients, would have been barely practicable for locomotives. In the view of the Committee, these facts "established the mechanical efficiency of atmospheric power to convey, with regularity, speed, and security, the traffic upon one section of pipe between two termini;" and the Committee were satisfied

Favourable report of Committee.

Reasons.

[1] Report of Lt.-Col. Sir Frederic Smith, R.E., and Professor Barlow, 1842.

[2] Commons' Committee on Atmospheric Railways, 1845: Evidence of Robert Stephenson.

by the evidence "that there is no mechanical difficulty which will oppose the working of the same system upon a line of any length." They had "no hesitation in stating that a single atmospheric line is superior to a double locomotive line both in regularity and safety."

Cost of haulage.

It had been objected that the atmospheric system could not be profitably employed to carry on a small and irregular traffic, since the expenses of haulage were constant, and could not be materially reduced, however small the traffic might be. The Committee found in this objection a reason on the other side, because expenses did not, as with locomotives, increase with the frequency of trains; and, therefore, companies adopting the atmospheric system would find it their interest to increase their traffic by running frequent light trains at low fares, a result of great public advantage:—

Frequent trains and low fares.

"Upon an atmospheric railway the moving power is most economically applied by dividing the weight to be carried into a considerable number of light trains. By locomotive engines, on the contrary, the power is most conveniently applied by concentrating the traffic in a smaller number of heavier trains. The rate of speed at which trains of moderate weight can be conveyed on an atmospheric line makes comparatively little difference in the cost of conveyance; while the cost of moving trains by locomotive engines increases rapidly with the speed. Now, when it is considered that we surrender to great monopolies the regulation of all the arteries of communication throughout the kingdom, that it depends in a great measure upon their view of their interest when we travel, at what speed we shall travel, and what we shall pay, it becomes a material consideration, in balancing the advantages ensured to the public by rival systems, to estimate, not so much what they can respectively do, but what, in the pursuit of their own emolument, they will do."

Single atmospheric lines.

A majority of the engineers examined before the Committee were of opinion that "any ordinary traffic" might be carried on with regularity and convenience by a single atmospheric line; but ordinary railway traffic forty years ago would not now enable a railway company to pay its way. Upon the vital point of comparative expense, the Committee owned

Relative expense of working.

themselves incompetent to pronounce a decided opinion. The locomotive system was lusty with fifteen years of growth: atmospheric traction was in its infancy. Had it been practicable to suspend all railway legislation until Parliament knew the results of working atmospheric lines now in course of construction, this might have been the most prudent course. As it could not be adopted, the Committee thought that, in judging between competing lines, those on the atmospheric system should not be condemned because they were laid out with gradients too severe for locomotives. To conclude, the Committee were of opinion that there was then "ample evidence which would justify the adoption of an atmospheric line," though "experience alone could determine under what circumstances of traffic, or of country, the preference to either system should be given."

Reception of report.

It was a cautious and an able report; and, judged by the light of those days, as in fairness it must be, there appeared good reasons to support it. What it did was to claim fair play for a new invention proved to be fitted for the railway traffic then existing, though not yet proved by the test of experience to be as economical, or as practicable, under all conditions, as its older rival. The result of this report, and of the whole controversy, confirmed the opinions expressed by Sir Robert Peel in the House of Commons. Though, as we have said, on theoretical grounds, inclined to the atmospheric system, and assenting to the inquiry of 1845, Sir Robert Peel confessed that he did not expect any good from the labours of the Committee. Such an investigation as was proposed would not clear up "any speculative point; for example, whether the Archimedean screw or the paddle-wheel was the best." Public opinion upon these questions would be determined, not by the report of any Select Committee, but by the test of repeated experiments by practical men. It was possible, he added, that the Committee might solve all doubts upon the mechanical part of the question, and might ascertain the exact expense of working; but the commercial success

Sir R. Peel's view of inquiry.

of the system depended upon a thousand considerations which no Committee could determine.[1]

Men of business, in fact, seem to have attached greater weight to the practical objections contained in Robert Stephenson's report than to any opinions expressed by the Committee. Among these objections, the most formidable assumed the application of the atmospheric principle to the London and Birmingham line throughout its length of 111 miles, and then proceeded :— Robert Stephenson's objections.

"Each train, in moving between London and Birmingham, would be passed, as it were, through thirty-eight distinct systems of mechanism, and it cannot be deemed unreasonable to suppose that in such a vast series of machinery as would be required in this instance, casualties occasioning delay must not unfrequently occur. If the consequences were confined to one train, such casualties would be of small moment, but the perfect operation of the whole is dependent on each individual part, and when the casualties extend themselves not only throughout the whole line of railway, but to every succeeding train which has to pass the locality of the mishap, until it is rectified, whether this occupies one hour or one week, the irregularity must be admitted to be very great. The delay would apply to every train, whatever might be its destination, and to every railway in connection with that upon which the accident occurred. Such a dependency of one line of railway upon the perfectly uniform and efficient operation of a complicated series of machinery on every other with which it is connected, appears to me to present a most formidable difficulty to the application of the system to great public lines of railway; so formidable, indeed, that I doubt much whether, if in every respect the system were superior to that of locomotive engines, it could be carried out upon such a chain of railways as exists between London and Liverpool, or London and York. This difficulty, which is insurmountable and inherent in all systems involving the use of stationary engines, was fully considered previous to the opening of the Liverpool and Manchester Railway, when the application to that line of stationary engines and ropes was contemplated." Result of casualties with fixed engines.

This solid reasoning, re-stated before the Select Committee, and enforced with copious illustration, must have been

[1] 78 Hansard, p. 944.

Rival bills of 1845.

accepted as conclusive by projectors and capitalists. It prevailed, also, with one exception, even before the Committees appointed to adjudicate upon the merits of the rival railways of 1845. This exception was a bill for a line between Epsom and Portsmouth. All the other schemes which proposed to adopt the atmospheric system were lost or abandoned; and the Epsom and Portsmouth line was never constructed.[1] After 1845, Parliament sanctioned no atmospheric railway.[2] The fate of the lines already authorized or working may now be recorded. Until 1855, the Kingstown and Dalkey line continued to use atmospheric traction, and was then absorbed by the Dublin, Wicklow and Wexford Company. The line from London to Croydon, or rather from New Cross to Croydon, was worked on the same principle until May, 1847, some time after it came into the hands of the London and Brighton Railway Company. Under Mr. Brunel's auspices, parts of the South Devon Railway were similarly worked in 1847-8. In September, 1848, locomotives were substituted; and this was the end of the atmospheric system in its application to English railways.

End of atmospheric traction in England.

The narrow gauge.

What became popularly known as the battle of the gauges was fought in Parliament with even greater pertinacity, and was still longer protracted. The first railway Acts contain no provisions regulating gauge, but by common consent engineers adopted the width between the rails which had been in general use on the primitive colliery railways. For these the way-leave or cart track of five feet had been taken, measuring from the rails' outside edge. The surface of each rail being then an inch and three-quarters wide, it followed that the width between the rails was four

[1] 1 Jeaffreson & Pole, 338.

[2] In 1848 a line to be worked by atmospheric traction, with Mr. Brunel as engineer, was proposed between Newcastle and Berwick, in competition with the line planned and afterwards sanctioned and carried out by Robert Stephenson, in connection with the High Level bridge.

feet eight and a half inches.[1] This was the standard, afterwards distinguished as the narrow gauge, which the Stephensons and their pupils found, and adhered to in laying out the railways they constructed.

Mr. Brunel was again the leader of a departure from the old ways. When planning the Great Western Railway in 1833,[2] he came to the conclusion that locomotives might be made more powerful and effective if they had a wider basis for their boilers and machinery, and that carriages of corresponding width might then be made to hold more passengers with greater convenience and also greater safety. In his view the gauge should be made to suit the engine and carriages; hitherto these had been cramped and limited in power and accommodation by forcing them to suit the gauge. The advantages he offered of greater speed, greater safety and easier motion at once made his seven feet gauge popular.

The broad gauge.

Public advantages of.

It was necessary, on the other hand, to satisfy directors and shareholders that the increased cost of a wider line would be repaid to them. This was easily done by statements of the increased accommodation which would be afforded for pas-

Increased cost.

[1] The Rocket weighed four and a-half tons; its loaded tender, three tons four cwt. The first engine run on the Stockton and Darlington line weighed, with its loaded tender, seven tons. A Great Northern passenger engine now weighs forty-four tons fourteen cwt.; and with its loaded tender, over seventy-two tons. To carry these enormously increased weights, rails are now made much stronger and wider. The increased width is given on the outside, so that the flange of the wheels works at the same intervals as before, and the gauge between the rails remains at 4 feet 8½ inches, while, measured from the outside edge of each rail, the original width of five feet is now exceeded.

[2] The Great Western Railway Bill of 1834 was defeated chiefly through the opposition of the University of Oxford and the school authorities of Eton. "Anybody," it was said, "who knew the nature of Eton boys would know that they could not be kept from the railway;" and that their morals and discipline would suffer accordingly. Hence, in the Act of 1835, the Provost and Fellows of Eton procured the insertion of clauses prohibiting the construction of any railway or station within three miles of the college, save with their written consent, and requiring the Great Western directors to maintain a staff of servants for the purpose of preventing the scholars from all access to the railway at certain points. (Sects. 99—103.)

sengers, as well as by the suggestion that a difference in gauge would save the company from any future territorial encroachment by narrow gauge railways. To districts already possessing railways, Mr. Brunel admitted that a new gauge would be inapplicable; not so in districts now for the first time traversed by railways, as in the western and eastern counties. The Great Western Railway, he wrote,[1] broke entirely new ground, and at present commanded this position, having "already sent forth branches which embrace nearly all that can belong to it." It could, he added, "have no connection with any other of the main lines," and the principal branches likely to be made could not "be dependent upon any other existing lines for the traffic which they will bring to the main trunk." Such were the narrow limits assigned in 1838 by the famous engineer of the Great Western Railway to a company whose system now covers a wider area than that of any other English railway, and is in contact with rivals in almost every part of it.

Barrier against encroachment.

Position of Great Western Railway.

The change of gauge introduced upon the Great Western Railway was adopted by the company without express sanction by Parliament. It has been seen that in the earliest Railway Acts the width between the rails was taken for granted or was left to be fixed by promoters. In 1834, however, a clause prescribing the gauge was generally inserted in each Act. Mr. Brunel has himself explained how it was that such a clause came to be omitted from the Great Western Act. In the bill rejected by Parliament in 1834, the gauge was fixed, as usual, at four feet eight and a half inches. But, having the seven feet gauge in his mind, he made great efforts to procure the removal of this restriction from the Bill of 1835, and for that purpose communicated with Lord Shaftesbury, then Chairman of Committees in the House of Lords. Fortunately, the agents were able to cite as a precedent for such an omission the case of the London and Southampton Railway Act. Mr. Brunel thereupon was allowed to have his way, and the first Great Western Rail-

Great Western Railway Act, 1835.

[1] Engineer's Report to Directors, 1838.

way Act of 1835 left him free to adopt any gauge which he might be able to induce the directors to sanction.[1] On the Eastern Counties line a gauge of five feet was adopted, also without Parliamentary sanction.

Meeting of the two gauges.

The railway intercommunication which Mr. Brunel did not foresee, or chose to ignore, came about in 1844. Between Birmingham and Gloucester a narrow gauge line had been sanctioned by Parliament. An extension line, however, from Gloucester to Bristol was constructed, corresponding with the Great Western system. When opened in 1844 there was a break of continuity at Gloucester. The inconvenience and loss thereby sustained by traders caused much annoyance, and at public meetings the dislocation of traffic between Birmingham and Bristol and intermediate places was denounced as a national evil. Mr. Brunel, it was said, had set up in the West of England a barrier almost as effectual as the wall of China in preventing free commercial intercourse, and the interference of Parliament was loudly called for.

Competing lines: Oxford and Wolverhampton.

Early in the Session of 1845, the issue was raised in Parliament, with the result, at first, of increasing confusion instead of abating it. Two rival schemes for supplying railways to the West Midland district were promoted by the Great Western and London and Birmingham Companies, champions of the two gauges. The territory in dispute was worth a struggle. It included the great mining district of Staffordshire, lying south of Wolverhampton; the towns of Kidderminster, Stourbridge, Stourport and Worcester; and the district north of Oxford, intermediate between the two systems.[2] Both companies, therefore, put forth their whole energies in striving to acquire this territory, and both had

[1] Royal Commission upon the Gauge of Railways: Evidence of Mr. Brunel, October 25, 1838.

[2] Between Wolverhampton and Stourbridge there were then a hundred blast furnaces in work, producing about 468,000 tons of pig iron annually, and consuming nearly 4,000,000 tons of coals, iron, limestone and other raw materials. (Report of Railway Department of Board of Trade, 1845.)

strong supporters. Memorials were presented to the Board of Trade, and petitions to Parliament, by manufacturers and traders on behalf of each project. Constituencies sought help from their members; all the northern railway companies threw their influence into the scale for the narrow gauge project.

Break of gauge; new point of contact.

Stated shortly, the issue before Parliament was, whether the public interests would be better served by extending the broad gauge northward to Birmingham and Rugby, or by taking the narrow gauge down to Bristol and Oxford. The competing bills came before the new Railway Department of the Board of Trade,[1] for their preliminary report. "It would be difficult," they said, "to over-rate the importance of this question in a national and commercial point of view."[2] At the date of their report about two thousand miles of railway had been made or sanctioned on the narrow gauge, and three hundred miles on the broad gauge.[3] By right of prior possession and extent of sway, therefore, the narrow gauge had strong claims. At Gloucester, where the break of gauge then interposed, there was irresistible evidence of the delay, inconvenience and loss which it occasioned upon through traffic passing to and from the north and west of England. Would it not be well to diminish these evils by confining the broad gauge system within its existing geographical limits, and so hasten the time when, as was foretold some years afterwards, the broad gauge would gradually disappear?[4] Finding no superior advantages in the Oxford, or broad, as compared with the Tring, or narrow gauge scheme, the Board of Trade, upon

Board of Trade prefer narrow gauge.

[1] Established upon the recommendation of Mr. Gladstone's Committee of 1844.

[2] Report of Board of Trade, February 28, 1845, paragraphs 25, 26.

[3] In subsequent debates in the House of Commons the proportion was stated to be three thousand to one thousand miles, an estimate which no doubt included lines sanctioned up to that period of the session.

[4] "Every one must see that it is only a question of time when the broad gauge must cease to exist."—Mr. Allport, before Committee on Railway Amalgamation, 1872, p. 404.

general commercial considerations and grounds of public policy, decided in favour of the latter.[1]

A storm of indignation among the numerous friends of the broad gauge system was aroused by this report. The House of Commons had already shown its usual jealousy at any attempt by a Government department to dictate to Committees upon questions differing from each other in their circumstances, and each involving questions of legislative expediency. To allay these natural apprehensions, Sir Robert Peel, at the commencement of the Session of 1845, declared that, while he thought the reports of the Board of Trade furnished useful materials for enabling Committees to form sound conclusions upon pending railway schemes, he "did not think they ought necessarily to fetter the judgment either of Committees or of the House." Some members, however, were not satisfied with this assurance, and also disliked and distrusted enquiries which were not conducted in public, were carried on without hearing the parties interested, and yet were meant to exercise, and did exercise, an important influence upon projected railways both in and out of Parliament.

Reception of report.

Sir R. Peel's explanations.

Lord Howick was the mouth-piece of these complaints in the House of Commons, where he pointed out the injustice inflicted upon railway promoters by a preliminary examination of their schemes before a tribunal which left the parties on

Lord Howick on Board of Trade enquiries.

[1] The London and Birmingham Company voluntarily offered, on condition of their Worcester scheme being sanctioned, to make the following (among other) concessions in their Act:—1, That all the railways under their control, including their main line, should become subject to the options of purchase and revision of fares contained in Mr. Gladstone's Act of 1844; 2, a revised tariff to be framed for passengers and goods upon the whole of their railways; 3, coals and iron to be carried at rates not exceeding a penny per ton per mile, including toll and locomotive power. The Board of Trade attached much importance to the last guarantee, as they were informed that good house coals from South Staffordshire or Derbyshire could then be sold in London at 20*s*. per ton; whereas the price during the winter of 1844—5 had been 40*s*. It was estimated at this time that a saving of every shilling per ton on the coal consumption of London was equivalent to an annual saving of 150,000*l*. to consumers. (Board of Trade Report, paragraphs 66—70.)

both sides in complete ignorance of the grounds of its decisions. Vast interests were thus affected.[1] In the London and York Bill, for example, speculators had made bargains, the effect of which was that 1,200,000*l.* depended upon the fiat of the Board of Trade, and would be either added to or taken from the value of the shares if the decision were favourable or unfavourable. This was only a single instance out of many involving interests of almost equal magnitude, so that upon the decisions come to by officers in an inferior department of the Government depended sums in comparison with which those dealt with by Courts of Justice were totally insignificant. Lord Howick did not hesitate to allude to sinister whispers which had been in circulation; and though he believed them to be unfounded, he was convinced that too many of such rumours would be heard, and that a door would be opened to corruption and jobbery, if enquiries made behind the backs of parties interested were continued, and decisions laid before Parliament as though they were authoritative and conclusive.[2]

Committee upon bills.

Meanwhile, the rival bills had been referred in the House of Commons to a Committee, which had for its chairman Mr. Shaw, Recorder of Dublin, a member of experience in private bill legislation, who brought a judicial mind to bear upon the important issues raised. Fortunately, Committees could now be trusted as impartial tribunals. A reform some years before adopted in the Lords, and often urged in vain in the other House, had been at length accepted there. In the Session of 1845, for the first time, Committees on railway bills were freed from all suspicion of local or personal interest, and from the canvassing and partisanship which sometimes caused their decisions to be impugned and their motives suspected. Local members were no longer allowed to serve. Each Committee was restricted

New constitution of Committees in Commons.

[1] In 1845, 248 railway bills were lodged. The lines actually sanctioned involved an outlay of nearly 60,000,000*l.*

[2] 79 Hansard, pp. 140—9, and 170—85 (Feb. 5 and 6, 1845).

to five members, appointed by a Committee of Selection; and before they could attend or vote, each member was required to sign a declaration that his constituents had no local interest, and that he himself had no personal interest, in any bill or project referred to him.[1]

Decision of Committee.

Mr. Shaw's Committee sat for twenty-five days and examined more than a hundred witnesses. By common consent, they gave to both schemes close and impartial consideration. Their decision reversed that of the Board of Trade, and was unanimously in favour of the broad gauge line. It was now the turn of the friends of the narrow gauge to complain. On June 20, the report of the Committee was presented to a crowded House, and Mr. Cobden undertook to give reasons for its rejection. This struggle between the two systems in the Midland Counties, he said, was extending to Somerset, Wilts and Dorset; and in all these districts the question of gauge was one of paramount importance. The country had fifteen years' experience of the narrow gauge, and there could be no question of widening it; to do so, would require widened tunnels, viaducts, embankments, and bridges, at a cost which rendered these changes practically impossible. On the other hand, no such alterations would be required to turn broad into narrow gauge lines. In all probability men then living would see railways wherever turnpike roads existed, and he insisted strongly that a uniform gauge was a national necessity.[2]

Debate and division in House of Commons.

There was a long debate, and arguments were used which

[1] Twenty-two resolutions regulating private bill procedure were proposed. Many objections were taken to those forbidding local members to serve on committees when bills affected their constituents; but with so much private legislation before the house there was urgent need for limiting the number of members on committees, and all the resolutions were agreed to. (78 Hansard, pp. 271—308; March 4, 1845.) This reform only applied to railway bills, and only to those of the session. Such a step once taken, however, was not likely to be retraced, and the same rule was soon extended to all opposed private bills. (See *post*, chapter on Procedure in Committees.)

[2] 81 Hansard, pp. 972—6 (June 20, 1845).

are rarely ineffectual on such occasions. If, it was said, the House allowed a decision given by one of its Committees, after prolonged and careful enquiry, to be defeated by the votes of members who had been canvassed to attend the debate, but could not have made themselves acquainted with the merits of the case, a great blow would be struck at the authority of a now impartial tribunal. Though his constituents favoured the narrow gauge, Sir Robert Peel supported on these grounds the decision of the Committee, which was adopted, on a division, by 247 to 134 votes.[1] It may be added here that a Committee of the House of Lords were also unconvinced by the arguments used in the Board of Trade's report, and approved of the broad gauge scheme, which accordingly obtained the Royal assent.

Committee in Lords.

Royal Commission on railway gauge.

Although it upheld the report of its Committees, Parliament felt that the issue was still unsettled. On the motion of Mr. Cobden and of Lord Dalhousie, both Houses, therefore, concurred in an address to the Crown for a Royal Commission; and three men of great scientific attainments, Sir Frederic Smith, R.E., Sir G. B. Airy, the Astronomer Royal, and Mr. Peter Barlow, C.E., were appointed "to enquire whether, in future private Acts of Parliament for the construction of railways, provision ought to be made for securing a uniform gauge; whether it would be expedient and practicable to take measures to bring the railways already constructed, or in progress of construction, in Great Britain, into uniformity of gauge; and whether any other mode could be adopted of obviating or mitigating the evil" arising from a break of gauge.

Mr. Brunel's reasons for adopting a broad gauge.

Mr. Brunel was naturally one of the many witnesses examined by the Commissioners; and it is of interest to see his reasons for thinking, in 1834, that the standard gauge then in use was insufficient. "Looking," he said, "to the speeds which I contemplated would be adopted on railways,

[1] 81 Hansard, p. 979 (June 20, 1845).

and the masses to be moved, it seemed to me that the whole machine was too small for the work to be done, and that it required that the parts should be on a scale more commensurate with the mass and the velocity to be attained."[1] He made light of the difficulties arising from a break of gauge. It might be remedied by a third rail. Passengers would take care of themselves. Coals could be shifted in moveable iron boxes. "The worst that could happen would be the entire unloading and reloading of goods. Even that does not amount to anything in time or money that would be much felt by the public."[2] In January, 1842, a Railway Clearing House[3] had become necessary to adjust accounts arising from the immense interchange of traffic between railway companies, their through rates and through bookings, and the passage of rolling stock from one line to another. The existence and complicated work of this great organization gave powerful support to all arguments for uniformity. There was an overwhelming array of evidence on the side of the narrow as the standard and uniform gauge in this country.

Railway Clearing House.

The report of the Gauge Commissioners appeared in January, 1846. Rejecting all the mechanical contrivances suggested with a view to mitigate the evils of a break of gauge, the Commissioners were of opinion (1) That as regarded the safety and convenience of passengers, no decided preference was due to either gauge, though on the broad gauge the motion was generally easier at high velocities; (2) that in respect of speed the advantages were with the broad gauge, though there would be danger in attempts to attain higher speed except on lines better consolidated and more substantial than those then existing; (3) that as to the transport of goods, the narrow gauge was more convenient and better suited for general traffic; (4) that the greater cost

Report in favour of narrow gauge.

[1] Gauge Commission, evidence of Mr. Brunel, October 25, 1845.

[2] Ib., Question 4,049.

[3] The Railway Clearing Act, 1850 (13 & 14 Vict. c. 33), enabled the Committee of the Clearing House to sue and be sued for balances declared by them in favour of or against any railway company.

of constructing a broad gauge line caused no corresponding reduction subsequently in maintenance of way, cost of locomotive power, or other annual charges.

On these grounds the Commissioners were of opinion that the narrow gauge should be preferred for general use, especially as there were then in work only 274 miles of railway on the broad, against 1,900 on the narrow gauge system. A change from broad to narrow gauge, including the alteration of locomotives and rolling stock, would not, the Commissioners believed, cost over a million sterling. They did not recommend that this outlay should be defrayed from public funds, nor did they think that the broad gauge companies could be called upon to incur such an expense themselves, or even the expense of laying down a third rail, inasmuch as they had made all their works with the authority of Parliament. The continued existence of the two gauges, therefore, seemed inevitable. But with this tacit reservation of broad gauge lines then working, the Commissioners distinctly recommended that the narrow gauge should be made compulsory on all railways then under construction or afterwards to be constructed in Great Britain.

Cost of changing broad to narrow gauge.

Victory appeared now to rest with the narrow gauge. Parliament passed an Act, based on the recommendation of the Royal Commissioners, prohibiting the construction of any railway for the conveyance of passengers on any gauge other than four feet eight inches and a-half in Great Britain.[1] But the Act contained exceptions which rendered it of little value. It was not to apply to any railway [illegible] of a gauge specially defined in the authorizing statute, so that, in practice, Select Committees, within certain districts defined in the Act,[2] might still sanction broad gauge lines. Various railways already sanctioned, but not yet constructed, were also excepted, including the Oxford and Rugby, and Oxford, Worcester, and Wolverhampton lines, which had been added to the broad gauge domain after the hard fight of 1845. Parlia-

Gauge of Railways Act, 1846.

[1] 9 & 10 Vict. c. 57.

[2] South of the Great Western system, or in the counties of Cornwall, Devon, Dorset or Somerset.

ment saw the injustice of forcing the broad gauge companies to undo, at an enormous expense, what it had expressly authorized them to do. But the Act of 1846 went beyond a recognition of existing interests; and by a want of courage in allowing broad gauge extensions, after the system had on public grounds been condemned, Parliament added materially to the difficulties and the cost of railway communication in England. It had failed even yet to learn that the great trunk lines could not remain independent of each other, and isolated in their respective districts.

Gauge in Ireland.

The subsequent history of the different gauges may now be rapidly traced. In Ireland, the Royal Commissioners recommended a six feet gauge, and the Ulster railway was so constructed and worked. It was afterwards altered to the standard gauge of five feet three inches, prescribed in Ireland, as a compromise, by the Act of 1846; and the expense of alteration was shared between the company and its neighbours. All the other Irish railways were made five feet three inches wide, so that they at least enjoyed the advantage of uniformity.[1]

Eastern counties and Scotland.

The Eastern Counties line was constructed as far as Colchester on a gauge of five feet, but the mistake was seen and boldly met by a change to the ordinary gauge. The Blackwall line was similarly dealt

[1] The cost of constructing the Irish railways upon this compulsory and wide gauge was considerably increased, though the prospects of traffic were much less in comparison with the English narrow gauge lines. As some compensation, however, advances were made to Irish railway companies from the Consolidated Fund to aid in completing their lines. In 1865 the sum so lent was 3,899,000*l.* Of this principal sum, up to June, 1883, 2,507,000*l.* had been repaid with interest; 25,000*l.* had been remitted or written off; 1,367,000*l.* was outstanding, of which 76,000*l.* was overdue. Besides these arrears and loss of principal, 13,000*l.* of interest had been lost, and 59,000*l.* was in arrear. (Treasury Minute, June 11, 1883.) The maximum rate charged for these loans was five per cent. At the request of Irish members, this rate has since been reduced, and interest at four per cent. is now charged. Between 1833 and 1837 advances were made to the Ulster Canal Company amounting to 120,000*l.* The whole of this principal sum is now outstanding, with 198,000*l.* of interest. (Public Works Loan Board Report, 1882-3.)

with. Some Scotch lines were constructed on a gauge of five feet three inches, but were altered for the same reason.

Increase of railway intercommunication.

Meanwhile, intercommunication between the two systems of railway had greatly increased. In 1845, Gloucester was the only place at which the broad gauge joined the narrow gauge and a transfer of traffic occurred; in 1867, there were 26 such places.[1] Instead of the seven hundred miles of broad gauge laid down in 1845, there were 1,450 miles in 1867. By that time the necessities of their traffic had compelled the railway companies owning broad gauge lines to provide rails for narrow gauge traffic on 387 miles of their system. There remained, in 1867, of exclusively broad gauge lines, 1,069 miles, "presenting numerous points which formed the frontiers" of the two systems, and at which "great difficulty and expense were caused in the interchange of traffic," and "a positive bar was interposed to some classes of traffic."[2]

Broad gauge lines in 1867.

Royal Commission, 1867.

The Royal Commissioners who reported on railways in 1867, were of opinion that the continued existence of the double gauge was "a national evil;" and they thought it worthy of consideration whether, as this evil had "arisen to some extent from the proceedings of Parliament," a loan of public money should not be granted to defray the cost of putting an end to the broad gauge. Since that period the diversity of gauge has been much lessened, and delay or hindrance to traffic has been almost entirely removed, by the Great Western Company themselves, without any help from the State. For many years their system has been in process of gradual conversion from broad to mixed, from mixed to narrow, and from broad to narrow gauge. The results of this process are shown in the following statement, which

Gradual conversion of broad into mixed and narrow gauge.

[1] Report of Royal Commission on Railways, 1867, p. 29.

[2] Ib. p. 86. In 1867 the chairman of the Great Western Company estimated the cost of altering broad to narrow gauge, including permanent way and part of the rolling stock, at 2,000,000*l.*, double the estimate of 1846.

gives the number of miles of line on the various gauges now maintained on the Great Western system:—[1]

	Miles.
Broad Gauge Lines	188
Narrow ,, ,, ...	1,813
Mixed ,, ,, ...	244

It is clear from these figures that the principle of the survival of the fittest is gradually making way; and diversity of gauge in England, the keen struggles to which it gave rise, and the enormous waste of money it occasioned, are now little more than matter for history.[2]

While the great trunk railways and their net-work of branches have thus been assimilated in gauge, a future seems to be arising for subsidiary lines of narrower gauge which, whether in the form of "light railways,"[3] of steam tramways, or lines suited for steep gradients in sparsely populated and hilly districts, serve the local traffic cheaply, and are useful feeders to railways. To the last class belongs the Festiniog railway, well-known to most tourists in Wales, a single line about 16 miles long, with a gauge of one foot eleven inches and three-quarters. It was originally constructed as a tram road for the conveyance of slate from quarries near Festiniog to Port Madoc.[4] In 1869 the Com-

Subsidiary narrow gauge lines.

Festiniog Railway.

[1] For this return, which extends to March, 1884, and is exclusive of joint lines, I am indebted to the courtesy of the General Manager of the Great Western Railway, Mr. Grierson.

[2] In India the earlier railways were constructed upon a prescribed gauge of five feet six inches; but the greater economy of constructing and working narrower lines led Lord Mayo and his Council, after much controversy, to sanction a metre gauge of 3 feet 3⅜ inches. Out of 12,655 miles of railway worked or sanctioned in 1883, 1,743 miles were on the metre gauge. Two short lines of 40 and 50 miles length are made on gauges of 2 feet and 2 feet 6 inches. Nearly all the chief railways in India have been constructed by companies incorporated by English statutes.

[3] This term is employed in Part V. of the Regulation of Railways Act, 1868, which authorizes the Board of Trade to license railways for light traffic, worked at a maximum speed of 25 miles an hour.

[4] The loaded waggons came down the steep gradients to Port Madoc by gravity, and were then drawn back to the quarries by horses, which rode as passengers in the descending train. In 1864 locomotive power was used.

pany obtained powers[1] to carry passenger traffic. Similar powers have been acquired in the same district for lines on a two feet gauge.[2]

"Light" railways.

Light railways have not yet been sanctioned in England except of the standard width.[3] In Ireland these railways are made on a three feet gauge.

Gauge of tramways.

Parliament, in 1870, left the gauge of each tramway to be settled by the special Act authorizing it; but if the Act were silent, the gauge was to be of four feet eight and a-half inches.[4] A Committee of the House of Lords in 1879 recommended that, in legislation respecting tramways, "no preference should be given to one gauge over another," but that their width should be "settled freely, according to the circumstances of each case." Tramways of three feet and three feet six inches gauge have been lately sanctioned; and in agricultural districts and elsewhere, the use of steam has been allowed on tramways, even when laid by the side of highways.[5] The accommoda-

[1] 32 & 33 Vict. c. 141. The Company's original Act was 2 Will. IV. c. 48.

[2] See "Port Madoc, Croesor and Beddgelert Tram Railway Act, 1879," giving further powers to a company incorporated in 1865. In 1872 the London and North Western Railway Company were authorized to make a line, 12 miles in length, from their station at Bettws-y-Coed to Festiniog, upon a gauge of 1 foot 11½ inches, with a view to a junction with the Festiniog line. In 1872, also, the North Wales Narrow Gauge Railways Company were authorized to construct 34 miles of line on a 2 feet gauge. (35 & 36 Vict. cc. 85, 87.) In both these cases alternative powers were taken to increase the gauge to 4 feet 8½ inches.

[3] But the Southwold Railway, 8¼ miles long, is on a gauge of three feet.

[4] Tramways Act, 1870 (33 & 34 Vict. c. 78, s. 25).

[5] Three examples of rural tramways may be given. One of these, running by raised rails laid along the highway, between Wantage and the Wantage Road Station of the Great Western Railway, was constructed under a Provisional Order obtained in 1874. It is of the ordinary gauge, may convey "passengers, animals, goods, minerals, parcels and mail bags;" and in 1876 was authorized by Provisional Order to use steam or other mechanical power. In 1880 a tramway about 8 miles long, and of 2 feet 6 inches gauge, was authorized, starting from a point near the Great Northern Railway Station at Alford, in Lincolnshire, and running along the highway through two villages to Sutton-le-Marsh, on the coast. The company are allowed to use animal or (with the consent of the Board of Trade) steam power, and may carry minerals and goods as well as passengers. This line was opened for traffic in 1884. By Provisional Order in 1881, 24 miles of steam tramway on a 3 feet 6 inches gauge were

tion thus afforded is generally ample for rural districts.[1] At the same time, as brooks feed the river, so a valuable source of traffic is brought to railways by these tributaries. A transhipment of goods or produce is necessary, but the stream of traffic is so small that no great public inconvenience is occasioned. On the other hand, railways are made to villages which otherwise could hope for no such accommodation.

Provisions in early Railway Acts.

Many provisions in the early Railway Acts were borrowed from the legislation upon canals, as these in turn had borrowed from the still earlier legislation for river improvements. Such were the provisions authorizing the compulsory taking of land, the sale of parts of entailed estates for the purposes of the undertaking, and the investment of the purchase-money. The toll clauses were also in substance the same.[2] So were the capital powers.[3] The amount of loan capital varied; by degrees the borrowing powers of companies were limited to one-third of the share capital. In the Liverpool and Manchester Railway Act of 1826, and other Acts of that period, Parliament insisted that the whole of the share capital should be subscribed before the Company attempted to exercise any of the powers conferred upon them; and landowners whose property was scheduled might demand to see a certificate to this effect, given by a county magistrate, upon evidence furnished by the Company.[4]

Capital powers.

Passenger fares.

No specific rates for passengers carried by the Company were prescribed in the Liverpool and Manchester Act. If the Company acted as carriers they were authorized to make, "for all persons, cattle and other animals, such reasonable charges" as they should from time to time determine. If

sanctioned for general traffic, on the roads between Lincoln and Brigg, under the title of the Lincolnshire Tramways.

[1] Lords' Committee of 1879; Evidence of Mr. Oakley, of the Great Northern, and Mr. Allport, of the Midland Railways.

[2] Besides the mileage rates, additional charges were usually authorized for haulage by fixed engines at inclined planes.

[3] The earliest Canal Acts gave no authority to borrow money. These powers were first conferred in 1770.

[4] 7 Geo. IV. c. 49, ss. 73, 76.

passengers were conveyed upon the line by other persons, the Company's charge for each was fixed at eighteenpence for any distance not exceeding ten miles; two and sixpence for distances between ten and twenty miles; and four shillings for any distance over twenty miles. In this and subsequent Acts Parliament provided that the maximum tonnage rates for goods should abate at the rate of five per cent. for each one per cent. of dividend exceeding ten per cent. upon the paid-up capital. No provision was made for building stations; these seem to be a later development of the toll-houses which companies were authorized to erect. On a line sanctioned in 1824, and now forming part of the North British system, the making of stations was left in the hands of the landed proprietors along the line. If after receiving six months' notice, they failed to provide stations, the company might then furnish this accommodation.[1]

Conditional reduction of rates.

Stations.

In some instances railway companies were forbidden to use any "locomotive or moveable engines" without the written consent of the owners and occupiers of lands through which their lines passed.[2] Some Scotch landowners exacted very onerous conditions. One laird, in 1826, insisted that, at each end of the railway passing through his lands, iron gates should be put up, with a lodge for a porter who was "to keep out all intruders." He also required that locomotives

Use of locomotives restricted.

Onerous conditions imposed by landowners.

[1] 5 Geo. IV. c. 49, ss. 83, 84 (Palace Craig and Kirkintillock Railway Act, 1824). The word "stations," in the sense in which it is now used, does not appear to have been then known, and is not found in the Acts of this period. The company took power to erect toll-houses; the land-owners were authorized to build "wharfs or depôts, cranes, weigh-beams or warehouses" upon their land adjoining the railway. The sections cited also authorized them "to make and use proper and convenient places for waggons, carts and other carriages to lie and turn in and face each other, so that the making or using thereof do not obstruct or prejudice the passage of the said railway." This was the old equivalent for sidings. The landowners were to be at liberty to charge specified rates and tolls for the use of these depôts and conveniences. (Sects. 83—86.) See also *post*, p. 170 *et seq.*, as to station terminals. The North British Company has absorbed this and forty-five other companies.

[2] Heckbridge and Wentbridge Railway Act, 1826 (7 Geo. 4, c. 46, s. 7).

should not pass without his written consent. Provisions to this effect were embodied in the Act; and he and other owners, besides receiving ample compensation for the value of their land, levied tonnage rates, as a way-leave upon goods and minerals passing over it.[1] In those days many landowners resented any invasion of their estates, and stoutly opposed all attempts to survey it by railway engineers and their assistants, who in turn sometimes met force with force or strategy.[2] Landowners, in short, were no wiser than the traders, who thought it would be a disadvantage if a railway

[1] Edinburgh and Dalkeith Railway Act, 1826. It would be invidious to quote here the names of these owners, who showed no greater prejudice and greed than many landed proprietors on this side of the border, though the latter usually shrunk from any record in the statute book. Among many other instances of large sums extorted really to buy off opposition, but nominally for land and severance, is one in which 120,000*l.* was obtained for a strip of purely agricultural land, five or six miles long; with interest for two years in addition, owing to delays caused by the company's fruitless efforts to escape from a bad bargain. In another, 200,000*l.* was agreed to be paid for land and interference with amenities, though the line would have passed six miles from the owner's mansion. To save this expenditure the company proposed, in a subsequent bill, to avoid the estate; but though the owner had strenuously objected to the taking of his land, he then objected still more strenuously to the proposal not to take it. Other less familiar and more agreeable incidents are the voluntary return to railway companies by the Duke of Bedford of a sum of 150,000*l.* paid for compensation, as he found the railway had benefited his estate; and by Lord Taunton of 15,000*l.* out of 35,000*l.*, because his property had not suffered the full injury which was contemplated when part of it was taken.

[2] In one instance the survey was completed at night by the aid of dark lanterns. In another, an extremely unfair advantage was taken of a clerical landowner, whose land was surveyed while he was preaching and his watchers were dutifully listening to the sermon. In some cases there were serious affrays with "navvies" on one side, and on the other gamekeepers and farm labourers; occasionally the invaders were captured and placed ignominiously in the lock-up. George Stephenson told the Commons' Committee on the Liverpool and Manchester Bill, in 1825, that he had been threatened with ducking in a horse-pond if he proceeded with the survey. He and his assistants were watched day and night; and, to frighten them off one estate, guns were discharged at intervals to show that the garrison were on the alert. Upon the land of dissentient owners great part of the survey was made "by stealth, at a time when the watchers were at dinner."

were brought to their towns.[1] The time was to come when both would entreat that railways should be made, in order to increase the value of their estates,[2] or rescue the trade of their towns from decay. Even six years later, in 1832, the London and Brighton Railway Bill, after passing the House of Commons, was rejected by a committee of peers, without hearing the opponents, because the promoters had not "made out such a case as would warrant the forming of the proposed railway through the lands and property of so great a proportion of dissentient landowners and proprietors."

Brighton Railway Bill, 1832; landowners' opposition.

A keen struggle occurred between rival projectors to obtain possession of the trunk lines between London and Dublin, and London and Edinburgh. Parliament also recognized that it was a point of national importance to secure the best possible means of communication between the various parts of the United Kingdom. In August, 1839, the House of Commons adopted an Address to the Crown, praying for an inquiry by competent persons into the relative merits of the six lines then proposed to quicken the communication between London and Dublin.[3] A similar inquiry was instituted by the Government as to the best line of railway between London and Edinburgh. The former inquiry was necessarily directed to ascertain not only the line of railway which offered the greatest facilities of communication with Ireland, but the most suitable harbour. In 1832, there had been a proposal to convey the mails to Dublin *viâ* Liverpool, as that town had the advantage of railway communication with London, at that time wanting in Wales.[4] The plans prepared, however, prior to and during the year

Railway communication with Scotland and Ireland.

Dublin *viâ* Liverpool.

[1] Many towns throughout the kingdom insisted that railways, like canals, should be made at some distance from them.

[2] The valuation rolls of Midlothian, Peebles, Selkirk, Roxburgh, East Lothian and Berwick showed an average increase of thirty per cent. of rent between 1862 and 1877; while during these fifteen years the ordinary shareholders of the North British Railway received an average of only one per cent. per annum. (Com. Committee on Railway Rates, 1882; ev. of Mr. Walker, p. 31, who there attributes to railways much of the improved value of land in Scotland.)

[3] Hansard, August 12, 1839.

[4] Com. Committee on Post Office communication with Ireland, 1832.

1840, for the construction of railways through Wales, indicated that route as the shortest and best. Telford's suspension bridge across the Menai Straits, an engineering achievement of the first rank, was opened in January, 1826, and supplied what was then thought to be an available means for the passage, not of heavy locomotives, but of the carriages and waggons composing the train, a second locomotive upon the Anglesea side taking on the train when conveyed in sections across the bridge by horse power or by stationary engine.[1] This was Robert Stephenson's first proposal in connection with his Chester and Holyhead scheme.

Menai Straits.

While Holyhead had obvious advantages through its nearness to Ireland, and as the existing mail route, its claims as a harbour and advantageous railway terminus were disputed on behalf of Porthdynllaen and Orme's Head, both of which were chosen as the termini of lines competing with the Holyhead route. At the instance of the House of Commons, therefore, Commissioners were appointed by the Admiralty to report upon the relative capabilities of the three harbours just mentioned.[2] As a packet station for steamers of a large class, and as a harbour of refuge, a strong case was admittedly made out in favour of Porthdynllaen; but, upon the whole, Holyhead was preferred by the Commissioners as being nearer to Ireland and more convenient for the packets then running between Holyhead and Kingstown.

Holyhead and its rivals.

The way was so far, therefore, cleared for the Chester and Holyhead line; but the difficulties put into the way of the first railway projectors by the rules of Parliament as well as by the prejudices and cupidity of landowners were unbounded. In 1840 the Standing Orders of the House of Commons required that, while in the case of ordinary bills for constructing works the usual notices should be given in October or November, in the case of railway bills these

Chester and Holyhead line.

Standing Orders in 1840.

[1] Commons' Committee on Private Business, 1840, Third Report; evidence of Lieut.-Col. Sir Frederic Smith, R.E., pp. 13, 14.

[2] Report to the Admiralty by Rear-Admiral Sir James Gordon and Capt. Beechey, R.N., 1840.

notices should be published "twice in the month of February and twice in the month of March," and the plans deposited at the same period. These notices and plans referred, not to a railway bill for which sanction was sought in the Session then pending, but to a bill to be introduced in the following Session. The professed object of the Standing Orders was to give ample time for the consideration of railway bills by landowners and opponents, to check immature projects, and ensure completeness in such measures when eventually brought before Parliament.[1] In practice, however, the effect of the Standing Orders upon promoters was most inconvenient. At the time when it became necessary to make the survey the ground was often covered with snow; engineers were engaged in preparing for the Parliamentary campaign then just beginning; surveys consequently were almost always hasty and crude; and during the autumn it was necessary to have re- surveys, frequently involving deviations in the course of a proposed line.

Difficulties in complying with Standing Orders.

Imperfect surveys.

In the scramble between rival railway projectors at this period, each desirous to be first in the field, or at all events abreast of other competitors, imperfect surveys under the difficult conditions just explained became a source of chronic complaint in Parliament. The Commissioners appointed by the Treasury in 1839 found that this objection applied in a greater or less degree to all the six lines then proposed for completing railway communication from London to the Welsh coast.[2] Conclusive proof on this point was supplied in July, 1840, when the promoters of the Chester and Holyhead line requested indulgence for the plans and sections which should have been forthcoming in March and February. They had published the usual newspaper notices, but had found it impossible to produce the plans and sections by the time fixed

Plans and sections not ready.

[1] Commons' Committee on Private Business, 1840, First Report; Minutes of Evidence, p. 36.

[2] Commons' Committee on Private Business, 1840, Third Report; evidence of Sir Frederic Smith, pp. 10 11.

in the Standing Orders, and sought to be allowed to deposit them in November with a view to the introduction of their Bill in the Session of 1841. As they had secured a report in favour of their line from the Commissioners appointed to consider all the competing projects, they appear to have thought their claim a strong one. But the Committee to whom the case was referred were of opinion, after hearing evidence, that "the recommendation of a projected line of railway by Government Commissioners was not in itself sufficient to entitle the promoters of a line so recommended to an exemption from the Standing Orders generally applicable to Railway Bills," and declined to advise any relaxation of these orders in favour of the Chester and Holyhead line.

Indulgence refused.

The Bill was not ultimately passed until the year 1844. It was then found that the engineers responsible for the safety of Telford's suspension bridge did not approve of its use for railway purposes. Parliament therefore passed the Bill for the line from Chester to Holyhead, leaving a gap in the communication across the Menai Straits to be filled up by the subsequent construction of the necessary link. In the following year this link was supplied, and the result was the tubular bridge across the Menai Straits, an enduring monument of the inventive genius and fertile resources of Robert Stephenson.

Chester and Holyhead Act.

From the beginning of the century until the year 1824, an average of one Act a year passed for the construction of new railways, though there were several amending statutes applicable to lines already sanctioned, and chiefly intended to relieve existing companies from financial difficulties. In the years 1825-6, eighteen new railways were authorized. There were about five in each subsequent year until 1836, when statutory powers were obtained for the construction of twenty-nine, and in the following year for the construction of fifteen new lines. In 1838, 490 miles of railway were open for traffic in England and Wales, and about fifty miles in Scotland; the cost of constructing these lines amounted to

Railways sanctioned and made, 1801–43.

13,300,000*l.*[1] A re-action followed from what afterwards appeared the small excitement of 1836-7. It seemed that railway enterprise had almost expended itself. Of new projects brought forward there were few, while there were numerous amending Acts seeking further time for the completion of lines, or larger capital powers; and speculators were deterred by finding how greatly almost every railway exceeded its estimated cost. Still, progress had been made; for the length of railways authorized by Parliament at the end of the year 1843 was 2,390 miles, of which 2,036 had been opened for traffic; and the capital of these lines amounted to 82,800,000*l.*, of which about 66,000,000*l.* had been raised.[2] In 1844, notwithstanding a large excess in the estimated cost of construction, the revenue of the leading lines showed far more than a proportionate increase in revenue. The Liverpool and Manchester, Grand Junction, London and Birmingham, and York and North Midland Companies paid dividends of from ten to twelve per cent., while the fortunate shareholders in the Stockton and Darlington Railway divided fifteen per cent.[3]

Profits of railways, 1844.

When these large profits became known, shares in most railway companies rose to high premiums, and new projects were at once devised, either to open up new districts, or to share the gains from traffic on main routes, by means of lines more or less competitive. Existing companies, on the other hand, made strenuous efforts to hold possession of the ground already allotted to them. First, they alleged vested

New projects.

[1] Royal Commission on Railways, 1867, p. 9.

[2] Ib. p. 10.

[3] It was the passenger traffic which chiefly accounted for these results. On the Liverpool and Manchester line, according to the directors' first report, the revenue from this source had been estimated at 10,000*l.* for the half-year. It was, in fact, 100,000*l.*, while the revenue from goods and coals, estimated at 50,000*l.* and 20,000*l.*, was only 3,000*l.* and 1,000*l.* The cost of working, expected to be 33 per cent. on the gross receipts, was 62 per cent.; the cost of construction rose to 1,200,000*l.*, instead of 510,000*l.*, the first estimate. But a dividend of 8 per cent. was paid, and the 100*l.* shares rose to 200*l.*

interests, insisting that their capital had been spent upon the implied condition that Parliament had granted them certain rights which were not to be taken away, even in part, by similar concessions to competitive undertakings,[1] except upon clear proof of neglect or inability to accommodate the traffic. They did not, however, rely wholly upon this defence, but wisely prepared a second line of entrenchments, on which they might fall back, and asked Parliament to sanction branches, subsidiary to their main lines, or railways intended chiefly to block out intruders. Possession, and a command of almost unlimited resources, gave to existing companies great power in the Committee rooms, but Committees were not always swayed in their favour, and sometimes, indeed, sanctioned competing lines as the best remedy against threatened monopoly. The result was that, in the year 1844 alone, some fifty new lines, more than 800 miles long, were approved by the Legislature, with capital powers amounting to twenty millions and a half. Thus one year produced an authorized mileage and outlay exceeding that of all the railways completed during the first forty years of the century.

Defence of vested interests.

New lines in 1844.

This was only an instalment of the mass of projects which Parliament was asked to consider. The story of the madness which then seized upon all classes lives in satire as well as in the sober history of the time, and need not be repeated here.[2] Its results in railway legislation were remarkable.

Railway mania of 1845–7.

[1] This plea derived considerable weight from a passage in the Report of the Commons' Committee of 1844, who recommended that Parliament should "take no step which should induce so much as a reasonable suspicion of its good faith with regard to the integrity of privileges already granted, because one of the elements of encouragement to future undertakings was just and equitable dealing with those already established; and that at the same time nothing in the shape of a vested interest (by which the Committee mean an interest and claim over and above positive enactments, for some restraint of general principles in favour of the party) ought to be recognized by Parliament as attaching to existing railways."

[2] Two Parliamentary papers, issued in 1846, give the names and addresses of all subscribers to the railway schemes of 1845 for amounts above and below 2,000*l.*, with the

In 1845, 248 plans were submitted, and 118 sanctioned by Parliament, for 2,700 miles of railway, with capital powers of fifty-six millions. Before the next session opened, plans for 815 new lines had been lodged at the Board of Trade, involving the construction of 20,687 miles of railway, with capital powers of not less than 350,000,000*l.* Some of these projects soon proved abortive, but more than seven hundred railway bills were deposited at the Private Bill Office.[1] After immense labour in considering them, Parliament dismissed many of these bills, but sanctioned 270 new lines, 4,538 miles long, with a capital of 132,600,000*l.* In 1847, statutory powers were given for making 190 new lines, 1,354 miles long, with a capital of 39,460,000*l.*

Schemes of 1846.

Financial disaster was the natural result of this excessive speculation. At the end of the year 1847 a general Act was passed[2] extending the time for making certain railways. But this relief was insufficient, and in 1850 another Bill became law "to facilitate the abandonment of railways and the dissolution of railway companies." This Act enabled companies to abandon the whole or portions of their undertaking, and released them from the conditions under

Railway Abandonment Act, 1850.

exact sums for which they were responsible. The return for sums under 2,000*l.* included upwards of twenty thousand names, presenting some remarkable contrasts: "peers and printers, vicars and vice-admirals, spinsters and half-pay officers, members of Parliament and special pleaders, professors, cotton-spinners, cooks, Queen's counsel, attorneys' clerks, college scouts, waiters, excisemen, Catholic priests, coachmen, bankers, beersellers, butlers, domestic servants, footmen, mail-guards, and a multitude of other callings." Annual Register, 1846, p. 12.

[1] Speech of Sir Robert Peel, January 26, 1846; 83 Hansard, p. 190. The deposits for English railways alone amounted in 1845 to three millions, and in 1846 to nearly eleven millions and a half.

[2] 11 Vict. c. 3, which received the royal assent, December 20, 1847. It provided that within two months after the passing of the Act, companies desiring further time for the completion of works or the purchase of lands might apply to the Commissioners of Railways, who were authorized to enlarge the period limited for these purposes in the special Acts. During the crisis of 1847, railway companies, in order to pay their contractors, were obliged to raise money at from ten to thirty, and in some instances, it is said, even at fifty per cent. discount.

which their powers had been conferred.[1] Of the 8,590 miles of railway sanctioned in the three Sessions (1845-7), no fewer than 1,560 miles were abandoned by the promoters under the authority of the latter Act.[2] But 2,000 miles of railway, requiring forty millions of capital, were abandoned without the consent of Parliament.[3] Twenty years after this collapse the speculative fever broke out again, and its results were not less disastrous.[4] In 1865 the aggregate amount

[1] Abandonment of Railways Act, 1850 (13 & 14 Vict. c. 83).

[2] Royal Commission on Railways, 1867, p. 17.

[3] Report of Mr. Cardwell's Committee of 1853. Between 1845 and 1847 the shares in ten leading railway companies had suffered a depreciation of value estimated at 78,000,000*l.* In July, 1845, the 100*l.* shares of the London and North Western (then the London and Birmingham) stood at 243*l.*; on April 4, 1848, they were 126*l.*; the Great Western shares (80*l.* paid up) were at these two periods respectively, 205*l.* and 88*l.*; the Midland 100*l.* shares, 187*l.* and 95*l.*; London and Brighton 50*l.* shares, 76*l.* and 28*l.* 10*s.*; Lancashire and Yorkshire (70*l.* paid), 173*l.* and (82*l.* paid) 69*l.*

[4] On May 11, 1866, the Governors of the Bank of England informed the Chancellor of the Exchequer that they had that day made advances to the "unprecedented" amount of more than four millions sterling. Replying on the same day, Earl Russell and Mr. Gladstone referred to the "extraordinary distress and apprehension," amounting to "absolute panic," which then prevailed in the City. The crisis, they thought, differed from those of 1847 and 1857, as "those periods were periods of mercantile distress, but the vital consideration of banking credit does not appear to have been involved in them, as it is in the present crisis." Again, the shock to credit, instead of being "comparatively slow and measured," had "in this instance arrived with intense rapidity." In order, therefore, to avert calamities which might threaten trade and industry, the Government, as in 1847 and 1857, sanctioned a suspension of the Bank Charter Act, authorizing the Bank, in case of necessity, "to extend their discounts and advances upon approved securities" by means of note issues beyond the legal limits. No such discount or advance, however, was to be granted at a rate of interest less than 10 per cent.; and the Government reserved the power of recommending a higher rate. After a fair allowance to the Bank for its risk, expense and trouble, the profits of these advances were to belong to the public. Acting in conformity with this letter, the Bank, on May 12, raised the rate of discount to 10 per cent., a rate which lasted until August 17. Owing to the bank failures and the panic, English credit at this time fell so low abroad that the Foreign Office issued a circular intended to allay suspicion, and explaining the difference between scarcity of money and insolvency.

reported by Committee after Committee until subscription contracts were abolished in the year 1859.[1]

State control of railways.

Provision was made by clauses in each of the early Railway Acts for such general control and supervision as were reserved by the State. These clauses were made compulsory upon promoters, as similar clauses in various classes of Bills still are, by the Standing Orders of Parliament. It soon became necessary to regulate by public legislation the enormous powers which Parliament was confiding to railway companies. This legislation was frequently preceded by enquiry. A whole library, and not a small one, might be filled with volumes of debates in both Houses upon points of railway controversy, some now spent, others still rife; with blue books containing reports from countless Committees and Commissions, and evidence taken before them; with Parliamentary returns, and Departmental enquiries; with statutes which embody the decisions of Parliament; and judicial decisions given and text books written to interpret these statutes or apply them in disputed cases. Only a brief reference to some of the most important general statutes can be given here.

Carriers Act, 1830.

It is curious to find, so lately as 1830, protection given by the Legislature to "mail contractors, stage-coach proprietors, and common carriers for hire,"[2] without any mention of railways. Railway companies came under the general definition of carriers,[3] and were so entitled to the benefit of the

[1] The Standing Orders were amended in this sense at the close of 1858, and took effect in the following Session.

[2] The Carriers Act (1 Will. IV. c. 68), which recites, "the frequent practice of bankers and others of sending by the public mails, stage coaches, waggons, vans, and other public conveyances by land for hire, parcels and packages containing money, bills, notes, jewellery, and other articles of great value in small compass."

[3] That is, if they voluntarily undertook to act as carriers. As already appears, they were at first only expected to provide a road and rails for ordinary traders. The Railways Clauses Act, 1845, s. 86, authorized them "to use and employ locomotive engines or other moving power, and carriages and waggons to be drawn or propelled thereby, and to carry and convey upon the

statute, which made them not liable for the loss of goods above a certain value unless this value was declared and an increased rate paid for carriage. In the Highway Act of 1835,[1] railway companies were required to maintain gates at level crossings over highways. Railway companies were also chiefly responsible for the "great mischiefs" which in 1838 had "arisen by the outrageous and unlawful behaviour of labourers and others employed on railroads, canals, and other public works." By reason of such behaviour "the appointment of special constables is often necessary for keeping the peace and for the protection of the inhabitants and security of the property in the neighbourhood of such public works, whereby great expenses have been cast upon the public rates of counties and other districts."[2] Even the "navvy" is now better behaved. Rural parishes, however, then complained with reason that their peace was disturbed and property threatened by levies of well-paid workmen who at times were beyond all restraint. Parliament, therefore, charged the company carrying on works with the cost of all special constables appointed owing to the "behaviour, or reasonable apprehension of the behaviour," of the workpeople.

Level crossings.

Constables at public works.

The first public Act which applied solely to railways was one of 1838, "to provide for the conveyance of the mails by railways, at a reasonable charge."[3] This Act was based upon recommendations by a Committee of the House of Commons, and made the carriage of Post Office mails compulsory by all existing and future railway companies, at a reasonable remuneration, to be settled by agreement or by

Carriage of mails by railway.

railway all such passengers and goods as shall be offered to them for that purpose, and to make such reasonable charges in respect thereof as they may from time to time determine upon, not exceeding the tolls by the special Act authorized to be taken by them." But this section is permissive merely; and railway companies are not as such bound to be carriers (*Johnson* v. *Midland Rail. Co.*, 4 Ex. 367).

[1] 5 & 6 Will. IV. c. 50 (amended by 2 & 3 Vict. c. 45; 5 & 6 Vict. c. 55, s. 9; 8 Vict. c. 20, s. 47). And see 26 & 27 Vict. c. 92, s. 7.

[2] Preamble to 1 & 2 Vict. c. 80.

[3] 1 & 2 Vict. c. 98.

arbitration. One suggestion of the Committee, not adopted by Parliament, was that the Post Office should have power to run its own engines on railways, with trains conveying mails and passengers, on paying the companies for services rendered and accommodation given. Meanwhile the theory that railways were common tracks upon which any traders might run their engines and carriages had been wholly demolished, and all the provisions for this traffic in special Railway Acts were found to be illusory, because railway companies had not been required to give to such trains access to stations and watering-places; because the statutory tolls on independent traffic were fixed so high that no carriers except the railway companies themselves could work at a profit; lastly, for a reason before noticed, and quite sufficient in itself, because all traffic must be under one control, and a mixture of traders' trains with companies' trains was impracticable.

Railways as common thoroughfares.

Committee on railway system, 1840.

Alarmed, not for the first time, at the growth of powers which were of its own creation, the House of Commons, in 1840, appointed another Committee, with a view to some legislation in restraint of special Acts.[1] This Committee recognized the growing tendency towards monopoly of transit, but were of opinion "that however improvidently Parliament may, in the first instance, have granted to the railway companies such extensive powers, it is now advisable to interfere with them as little as possible," limiting interference to "a plan which may ensure the effectual administration of the laws by which each railway company is incorporated." In effect, the policy suggested was one of let-alone, subject only to a general supervision by the Board of Trade, whose duty it would be to see that railway companies complied with their special Acts, observe in what manner they "continued to

[1] Among the members of this Committee were Sir Robert Peel, Lord Stanley, Sir James Graham, Mr. Poulett Thompson, and Mr. Shaw Lefevre.

execute the important trusts committed to them," and suggest additional restraining measures, "if hereafter these should be deemed requisite."

In this sense, accordingly, Parliament legislated.[1] It made no attempt to regulate the monopoly of railways, relying, as the Committee had suggested, on "the good feelings and continued exertions of railway companies and their directors to meet the wants and remedy the complaints of the public" upon this point. Public safety was the main motive alleged for the statutes of 1840-2, which required that no railway should be opened for passenger traffic until after inspection by the Board of Trade, and also required that returns should be made to the Board as to traffic, tolls and rates, and all cases of accident. Existing bye-laws affecting persons not servants of a company were to be submitted to the Board; no new bye-laws were to be valid until sanctioned by the Board. As guardians of public interests, the Board were authorized to certify any infraction of the law by railway companies to the law officers of the Crown, who were thereupon to take the requisite legal proceedings. Railway companies were also called upon to convey troops at reduced rates.

Railways Regulation Acts, 1840-2.

Inspection of railways before opening.

Returns.

Bye-laws.

Board of Trade, guardians of public.

These were the main provisions of general importance, but two changes of some interest were made affecting the special Acts hitherto passed. Railway companies had been bound, under their special Acts, to make, at the expense of owners or occupiers of lands adjoining the railway, openings for the purpose of connecting it with any branch constructed upon such lands. In the event of disagreement as to the proper places for making a junction, two justices were to decide. For this tribunal, hardly a competent one for adjudicating upon technical questions of this nature, the Board of Trade was substituted, acting of course through the experts it employs as inspectors. Again, various special Acts relating

Junctions with private lines.

[1] 3 & 4 Vict. c. 97; amended by 5 & 6 Vict. c. 55 and 34 & 35 Vict. c. 78, s. 17.

Weight of carriages or waggons.

to railways limited the weight of a carriage or waggon, including its load, to four tons. Later experience showed that in many cases it was "more conducive to safety to use a heavier description of carriage or waggon." Every such limitation contained in special Acts was therefore repealed.[1]

Mr. Gladstone's Committee, 1844.

The year 1844 produced an inquiry of great importance, leading to legislation which was meant to have a permanent influence upon railways in the public interest. On the 5th of February Mr. Gladstone, then President of the Board of Trade, moved the appointment of a Select Committee to consider whether any and what new provisions ought to be introduced into such Railway Bills as might come before the House during that or future Sessions, for the advantage of the public and the improvement of the railway system.[2] With a view to obtain a control over railway companies through their special Acts, the Committee in their first report recommended, and the House resolved, that a clause should be inserted in all Railway Bills passing through Parliament, making the railway authorized by the Act subject to any special general legislation which might be subsequently passed relating to railways. A clause to the same effect is still inserted in every railway Bill.[3]

New railways subjected to future general legislation.

[1] Railway Regulation Act, 1842, long known as Lord Seymour's Act (5 & 6 Vict. c. 55, s. 16). The increased weight of engines has been already mentioned (p. 65, n.). On the first introduction of passenger railways, speeds of about twelve miles per hour only were anticipated. The rails then employed weighed only 35 lbs. per yard. As soon as speeds of twenty and twenty-four miles per hour were attempted, it was found necessary to have rails of 50 lbs. per yard. Up to 1846 the rails were increased in weight progressively to 65, 75 and 85 lbs. per yard.

[2] Among the members of the Committee were the Chairman (Mr. Gladstone), Mr. Labouchere, Lord Seymour, Mr. Wilson Patten, Viscount Sandon, Mr. Gisborne, Lord Granville Somerset, Mr. Cardwell, and five railway directors, including the chairman of the Great Western Railway, Mr. Russell. On this ground the constitution of the Committee was much opposed, but no change was made in it.

[3] This common clause, first introduced into railway Acts in 1845, is now (1885) as follows:—"Nothing in this Act contained shall exempt the company or the railway from the provisions of any general Act relating to railways, or the better and more impartial audit of the accounts of railway com-

Examination of railway bills.

In their second report, the Committee recommended changes, already noticed, in the constitution of Committees on Railway Bills. Heretofore, they pointed out, it had not been usual to examine closely the bearing of such Bills on public interests. To ensure that public interests should not hereafter escape notice, the Board of Trade might prepare reports of all Railway Bills for the information of Committees. All Bills for competing lines might be referred to the same Committee, which should take into account the relative advantages to the public promised by new schemes, or afforded by existing companies with whose railways they would compete. A third report, made after taking evidence for three months,[1] entered fully into the whole subject of railway legislation. As a proof that Parliament did not intend to confer any monopoly on railways, the Committee of 1840 had pointed to the provisions enabling persons to run engines and carriages on the tracks. But the Committee of 1844 appeared to be of opinion that, within certain limits, a company, to which Parliament had conceded privileges, should be protected from competition.[2] One passage to this

Competitive schemes.

panies, now in force or which may hereafter pass during this or any future Session of Parliament, or from any future revision or alteration, under the authority of Parliament, of the maximum rates of fares and charges, or of the rates for small parcels, authorized to be taken by the company." See S. O. 132 (Lords), 169 (Commons).

[1] Twenty-seven witnesses were examined; one of these, Mr. Laing, then engaged at the Board of Trade, was under examination for seven days. He explained and defended the proposal, afterwards assented to by the railway companies and adopted by Parliament, that at the end of twenty-one years from January 1, 1845, the Government should have the option of buying any given line at twenty-five years' purchase of the annual divisible profits calculated upon the average of the three last preceding years.

[2] So, when the Committee was appointed, Sir Robert Peel contended, in the House of Commons, that a material distinction was to be drawn between new companies approaching Parliament for the first time, and companies which, relying on the faith of Parliament, had invested their capital in the construction of railways. "Parliament, it was true, might repent of the indiscretion and levity with which it had granted those powers . . . but he would advise Parliament to be very cautious how it interfered with the

effect from their report has been already cited.[1] In another, the Committee said:—"The willingness of promoters to expend capital in making a new railway is not to be at once taken as a sufficient ground for granting the necessary powers; there is no public advantage in the construction of a work which cannot afford remuneration. There can be no security for the working of a railway except its yielding a profit." On the other hand, powers so granted by Parliament might be "used as efficient instruments of extortion against existing companies, to whom might be offered the alternative of losing their traffic or of buying off opposition."

This guarded language, upholding railway companies, under limitations, against future competition, may have been used in order to reconcile the companies to the proposed revision of rates, and purchase of new lines by the State. The Committee's recommendations on these heads were embodied in a statute of the same Session.[2] For a time, this legislation was strongly opposed by the railway companies, who believed that, although revision and purchase were only to affect future railways, an attempt would soon be made to extend the same conditions to existing railways. In the end all opposition was withdrawn. Railway directors were probably astute enough to see that these parts of the Bill would prove a dead letter. The Bill therefore passed its third reading, and was carried through the House of Lords without further objection. It gave the Treasury power, twenty-one years after the authorization of any future railway, if the dividends had for the three preceding years averaged ten per cent. upon the subscribed capital, to fix a lower scale of tolls, fares and charges. This revision in the public interest was to be accompanied with a guarantee by the State to maintain the annual dividends at ten per cent.; and no further revi-

Mr. Gladstone's Act of 1844.

Revision of rates after 21 years.

State guarantee of ten per cent.

profits or management of companies which had been called into existence by the authority, and had invested their money on the faith, of Parliament." Commons' Debates, Feb. 5, 1844; 72 Hansard, p. 250.

[1] *Ante*, p. 87, n.

[2] 7 & 8 Vict. c. 85. It received the Royal Assent, August 9, 1844.

sion could then be made until the expiration of another term of twenty-one years.

Option of purchase by State.

A still more ambitious, as well as impracticable provision, gave to the Treasury, at the expiration of twenty-one years, whatever might be the divisible profits upon a new railway, an option to buy it, "in the name and on behalf of her Majesty," upon paying twenty-five years' purchase, estimated on an average of profits during the three preceding years. If these profits were less than ten per cent., and the company thought the terms of purchase inadequate, they might require an arbitration, in which the prospects of the railway would be considered. Many other safeguards were introduced at the instance of the companies. No option of purchase was to be exercised while any revised scale of rates had effect. Existing railways were expressly excluded from both options. But this was not enough. New branches or extensions, less than five miles long, made by an existing railway company, were also exempted; and, except with the consent of the proprietors, no branch or extension could be bought without including the whole system in the purchase.

Guarantees to be given, and money provided, before exercise of options.

Lastly, there was a recital[1] "that the policy of revision or purchase should in no manner be prejudiced" by this Act, but "should remain for the future consideration of the legislature, upon grounds of general and national policy." Before, then, notice of revision or purchase could be given to any company, it was enacted that Parliament should expressly authorize the guarantee of dividend or the payment of purchase-money. No doubt it was expected by the shrewd representatives of the railway companies that little harm was done by a statute which merely embodied general intentions, and that Parliament would shrink in cold blood from the necessity of giving actual guarantees or finding large sums of money for purchases more or less speculative. When the period for exercising these options arrived in 1865, ten per cent. dividends were rare enough, and railway companies

[1] To sect. 4 of Act.

Contingency of ten per cent. dividends.

were again about to suffer great adversity. Had they even continued to prosper, they might have prevented the contingency on which the options depended, for the Act provided no effectual audit of their accounts, and their dividends might easily have been made subject to deductions which would have kept revision at bay and probably purchase.

Third class passengers.

While the Act of 1844 completely failed in its two main objects, it was successful in obtaining for third class passengers the great boon of cheaper fares and greater facilities in travelling. Railway managers had not yet discovered that third class traffic was their main stay.[1] On the contrary they treated it as a hindrance to the development of revenue, discouraged it by wretched accommodation with long delays, and arranged their train service with a view to force passengers to change at one point or other of their journey from a cheap to a more expensive class of carriage.[2] This was especially the case when a long line of communication was broken up into several links, each in the hands of independent companies, subject to no control, and able to adjust their trains at their discretion.[3]

[1] I believe that few railway managers have made this discovery even now, because they allege that the result of carrying third class passengers by nearly every train has been a large decrease in the proportion of first and second class passengers, without any large increase in travelling for long distances, although for short distances the passenger traffic has increased through the facilities now offered.

[2] In 1844, third class passengers were conveyed in carriages exposed to the weather. A third class passenger from London to Liverpool was forced to spend two days on the journey. Even a second class passenger had to stop at Birmingham for the night unless he travelled thence to Liverpool by the first class. Third class passengers were nine hours and a half on the journey between London and Bristol. Mr. Laing, in his report as Secretary to the Railway Department of the Board of Trade, stated that, in 1844, third class passengers could "seldom avail themselves of the facilities of railway travelling for long distances," and that, through the want of these facilities, the proportion of second and third class to first class passengers was, upon the London and Birmingham Railway, as 63 to 37; upon the Grand Junction line (between Liverpool and Birmingham), as 46 to 54.

[3] In the report just cited, Mr. Laing mentions the following example:—"The London and Birmingham Railway Company runs seven mixed trains, or trains with second class carriages, each way

The Act declared, and not too soon, that it was "expedient o secure to the poorer class of travellers the means of travel- ing by railway at moderate fares, and in carriages in which hey may be protected from the weather." One third class rain at least was to be run on each week day from one end o the other of each trunk, branch or junction line, starting .t an hour to be approved by the Board of Trade, stopping .t each station, and travelling at an average speed of not ess than twelve miles an hour, including stoppages; with arriages enclosed and provided with seats, and fares not ex- eeding a penny per mile. The Act of 1844 was, in fact, the ıoor traveller's charter. He was allowed half a hundred- veight of luggage without charge. His children under three ·ears of age must be carried free; between three and twelve ·ears, they were to pay half fares. If passenger trains were un on Sundays, parliamentary trains must be run also on hose days. Not only were new companies subjected to these onditions; they were imposed on every existing company ·hich came to Parliament for an Act to extend or amend its ›wers. In other words, the statute was soon made of ıiversal application. In return, railway companies were mpted from passenger duty upon their receipts from these ny a mile fares.[1] Further facilities for the conveyance of ls and of troops or police were given by the Act. Railway panies were also bound to allow electric telegraph wires to

Parli tary

Mails, troops and police.

Electric telegraphs.

but the Grand Junction Com- nly runs two mixed trains, of one leaves Birmingham at and another leaves Liverpool p.m., being respectively too too early to form links in gh communication by day London and Liverpool." he total number of passen- these lines in 1842, it that at least 75,000 per- lly who would wish to econd or third class car- compelled, by the ar- rangements of the Grand Junction Company, to travel by first class."

[1] When railway companies found it to be their interest to carry third class passengers at rates not ex- ceeding a penny per mile, by quick trains on through routes, without stopping at intermediate stations, they lost the benefit of this exemp- tion, as they did not come within the precise terms of the Act. It was a hard case, met, in part, by 46 & 47 Vict. c. 34 (Cheap Trains Act, 1883).

be laid down by the side of their lines for the service of her Majesty; and if wires were laid by the railway company or by other persons, they were to be open for the service of the public at reasonable charges for their use.

These were the principal provisions in an Act which, though it did not transfer English railways to the State (happily, perhaps; for the State might have found them a hard bargain) conferred great and enduring benefits on poor travellers, at a time when they were neglected as a source of revenue, and were hardly better treated, or more rapidly conveyed, than the cattle which were consigned by train to farmstead or market.

Increased length of local Acts.

Another recommendation made by the Committee of 1844 had an important bearing upon Private Bill Legislation. Year by year, as defects came to light, or new wants developed, the provisions in special Acts became more complicated and numerous, when any company was incorporated for the purposes of a new undertaking and the construction of works. In 1801, the Wandsworth and Croydon Railway Act contained ninety-five clauses; in 1844, the Lancaster and Carlisle Railway Act contained 381 clauses. By far the greater number of these clauses were common to all railways, and many of them to all new undertakings. Yet they were repeated mechanically in almost every local Act, along with the general conditions which Parliament imposed upon promoters. The statute book, in consequence, gradually became more and more unwieldy, until at length five bulky volumes could hardly contain the local Acts passed in a single Session, while the general legislation of the year went easily into one volume.[1] To stop this growing evil, the Committee of 1844 endorsed a suggestion, long before made by persons interested in Private Bill Legislation, that much expense might be saved, and brevity as well as precision and uniformity secured, if all common and indispensable clauses were classified in general Acts, which

[1] See the Public General and Local Statutes for 1840-4.

could then be incorporated into each special Act by a few lines of reference.[1]

In 1845, Parliament adopted this suggestion, and passed three general statutes upon a plan already familiar in the legislation upon inclosures. The first statute contained 164 clauses "usually inserted in Acts with respect to the constitution of companies incorporated for carrying on undertakings of a public nature."[2] These clauses regulated the raising of capital, the rights of shareholders, the powers and duties of directors, the declaration and payment of dividends, the keeping and auditing of accounts, and the general management of the company's affairs so far as concerns its proprietors and its creditors. The second Act, of 150 clauses,[3] provided for the taking of land by companies, whether compulsorily or by agreement, the payment of compensation, the security of title to property taken, and the sale of superfluous land not required for the purposes of the undertaking. This statute applied to all companies incorporated with powers to acquire land. The third Act, of 160 clauses, applied specially to railways,[4] and regulated their construction, the temporary use of lands during construction, the taking of additional lands for stations, the crossing of roads, the building of bridges, screens for roads, accommodation works for landowners, and the working of minerals under a railway.

Consolidation Acts, 1845.

Companies Clauses Act.

Lands Clauses Act.

Railways Clauses Act.

A modern Railway Bill now contains by reference in a single clause parts or the whole of these three statutes, with the Acts amending or extending them; and a measure which would otherwise consist of five or six hundred clauses rarely exceeds fifty. Since 1845 this work of consolidation has been extended to provisions affecting gas and water works,

Modern railway bills.

Later Consolidation Acts.

[1] See *post*, chapter on Consolidation Acts.

[2] The Companies Clauses Consolidation Act, 1845 (8 Vict. c. 16). See also Companies Clauses Acts, 1863 and 1869.

[3] Lands Clauses Consolidation Act, 1845 (8 Vict. c. 18). See also Acts of 1860 and 1869.

[4] Railways Clauses Consolidation Act, 1845 (8 Vict. c. 20). See also Railways Clauses Act, 1863.

harbours and docks, markets and fairs, cemeteries, telegraphs, police, and various municipal regulations.[1] In this way, not only has the expense of printing Bills and Acts been reduced, but the work of Private Bill Committees has been lightened, and legislation has been made more concise, certain and uniform. At the same time the consolidated provisions in all these statutes are not made rigid and inflexible. They may be varied in the special Act if sufficient cause be shown by promoters, and are usually incorporated so as to form part of the special Act, "except where expressly varied" by such Act.

Apprehended monopoly by railways.

The year 1846 was fruitful in inquiry. Both Houses appointed Committees to consider the growing powers of railway companies, and the monopoly of transit which these bodies were gradually setting up in all parts of the kingdom aroused serious apprehensions in Parliament. The turnpike roads, made at so great an expenditure, after absorbing so much time and care in legislation, no longer yielded the tolls necessary for their maintenance. From the same causes, canals, in many cases, were losing the margin of revenue which afforded a profit.[2] In 1845 began a long series of Acts, annexing canals to railways,[3] or bringing them under the control of railway companies, which then, by adjusting

[1] *Post*, c. on Consolidation Acts.

[2] Not many years before, some canals had returned large profits. In 1836, an original share in the Loughborough Canal, which cost 143*l.*, was worth 1,250*l.*, and yielded a dividend of 90*l.* or 100*l.* a year; the fourth part of a Trent and Mersey Canal share, or 50*l.* of the company's stock, was worth 600*l.*

[3] It is fair to remember that the promoters of railways were forced to buy many canals to get rid of a parliamentary opposition which might otherwise have proved fatal. The purchase of the Stratford-on-Avon Canal by the Oxford, Worcester, and Wolverhampton Railway Company is one of several like instances. The same company (now Great Western), as the price of obtaining their line, in 1845, were obliged to guarantee to the Severn Navigation Commissioners a sum of 14,000*l.* a year, this being the estimated amount of tolls on the security of which the commissioners had borrowed money, and their apprehension being that a competing railway would divert traffic, and reduce their revenue. This liability is still binding on the Great Western Railway Company.

rates or blocking transit, secured a monopoly for heavy merchandize, as well as for light goods and passengers. In 1846, so numerous were the Bills of this nature promoted by railway companies, that a Committee of the House of Commons was appointed specially to consider the policy of sanctioning them. The general conclusion come to was, that it would not be politic altogether to prohibit the amalgamation of railways with canals. The Committee suggested, however, that "a most searching inquiry" should be made into the merits of each case, and these amalgamations should only be allowed when it was clearly proved that they could be effected without prejudice to public interests. Among other safeguards recommended were a low scale of tolls and charges, and strict precautions for maintaining the canals in efficient repair and ensuring a proper supply of water.

Commons' Committee on railway and canal amalgamation, 1846.

Committees on Private Bills in 1846 appear to have been either uninfluenced by these warnings or satisfied with the case made out by promoters, for in that Session alone special Acts were passed which transferred 774 miles of canal from independent bodies to railway companies. Under the stress of railway competition, indeed, canal proprietors had often little option between ruin or surrender. This unequal rivalry could have but one end. Some canals became derelict.[1] Nearly one-half were bought up by railway companies and made subsidiary to their main undertakings.[2] By leaps and bounds, railways absorbed the through traffic between producing and consuming districts; they even superseded the ordinary roads for much purely local traffic. In short, they became, and, with rare exceptions, still remain, the sole practicable means of land transport for passengers and goods for

Result of legislation in 1846.

[1] The Commons' Committee on Canals, 1883, give (p. 228) a list showing 250 miles of canals and navigations abandoned or converted into railways.

[2] Ib. 214. According to a Board of Trade return, 1,436 miles of canals and navigations in the United Kingdom were owned or controlled by railways up to the end of 1882, out of a total mileage of 3,029.

long distances;[1] monopolies, tempered as a whole by the control of Parliament, and tempered also in part by two important limitations—competition among themselves, and competition between ports and places accessible from coast or river.[2]

Steamboat powers of railway companies.

By obtaining from Parliament the grant of powers to own and run steamboats, the leading railway companies were able to compete with British shipowners even at sea. These powers, first given in 1848,[3] were afterwards extended, though with much hesitation, by Parliamentary Committees, on the plea that they were to be used by railway companies virtually for steam ferry purposes, for bridging gaps in a continuous line of communication. From Holyhead to Dublin, for example, the transit might "be fairly considered as a portion of the railway enterprise;" the London and North Western Company naturally wished to ensure certain and speedy conveyance for its traffic by land and sea between London and Dublin; and the line to Holyhead would never have been constructed but for this object.[4] When, however, other railway companies were authorized to run steamboats to Rotterdam, Antwerp, Flushing, Ostend, Channel Islands, Havre, St. Malo, and many other French ports, we must clearly go beyond these limited reasons for the grant of such wide powers.

The steam ferry theory.

[1] The project for a ship canal between Manchester and Liverpool, with a capital of seven millions, was rejected in 1883, and again in 1884, but is now (1885) once more revived. Since the introduction of railways there has been no attempt to compete with them on any considerable scale, and the result of this energetic adventure will therefore be watched with peculiar interest. An Act of the same character, passed in 1884 (47 & 48 Vict. c. 161), authorizes improvements in the navigation of the Lower Ouse, between the Humber and Goole, which will enable sea-going vessels of large tonnage to reach that port, a step towards a ship canal from the east coast to manufacturing towns in the West Riding. In 1827-8 a ship canal was projected from Portsmouth to London.

[2] The Joint Committee of 1872 on Railway Amalgamation stated that sea competition then affected the rates for goods at three-fifths of all the railway stations in the United Kingdom (Report, p. 19).

[3] To Manchester, Sheffield and Lincolnshire Railway Company by Humber Ferries Improvement Act, for improving the steam communication across the Humber, from New Holland to Hull.

[4] Report of Board of Trade and Railway Commissioners, 1847-8.

Parliament had, in fact, come to the conclusion that, though these powers must be carefully watched, and public interests safeguarded in the case of all proposals by railway companies to run and own steamboats,[1] the qualified monopoly thus granted was, on the whole, justified by corresponding advantages to the public; that railway companies should, in fact, be allowed to carry by sea as well as by land if the latter business were expedient for the development of their traffic.[2] How far this theory was carried is shown by an Act of 1864 which authorized the Manchester, Sheffield and Lincolnshire Railway Company to run steamboats and other vessels to the following ports:—Rotterdam, Antwerp, Hamburgh, Flushing, Lubeck, Stockholm, Copenhagen, Revel, Cronstadt, St. Petersburgh and Konigsberg. Witnesses examined at this period might well be puzzled to answer the question "What is a ferry?" consistently with the ferry theory as a reason for this legislation. And it was equally hard to answer the argument that, if one railway company were authorized to run steamboats to Revel, Copenhagen and Cronstadt, there was no reason in principle why another railway company should not be allowed to carry goods from its termini in its own steamers to New York, Calcutta and Melbourne.[3]

Lord Stanley's Committee, 1864.

By the gradual extension of their powers to run steamers[4]

[1] See Commons' Standing Orders of 1885, Nos. 156, 162; and Railways Clauses Act, 1863, ss. 30, 35. By Acts of 1868 and 1871, railway companies booking through by rail and sea are allowed the same limitation of liability as shipowners in respect of sea risks. (31 & 32 Vict. c. 119, s. 14; 34 & 35 Vict. c. 78, s. 12.) In return for this privilege, railway companies are required to charge the same fares for passengers who use their steam vessels only as for passengers who travel both by their steam vessels and railway. (31 & 32 Vict. c. 119, s. 16.)

[2] Report of Commons' Committee, 1864, of which Lord Stanley was chairman. The Committee add that the same arguments apply to the ownership by railway companies of docks, piers, harbours and ferries. But the House of Commons declined to adopt a proposal by the Committee to modify the Standing Orders in this sense.

[3] Clifford on Steamboat Powers of Railway Companies, 1865, pp. 52, 53.

[4] In recent instances these powers have been granted without any limi-

the monopoly of railway companies, as the shipowners contended, was materially enlarged, and private competition by sea made more difficult; while the railway companies maintained that they only acquired the means of accommodating traffic efficiently. The other expected check to monopoly, competition among the railways themselves, seemed to be threatened by bills for amalgamations, leases or other arrangements under which certain companies began to swallow up their neighbours, with ever-growing appetites for more. It was found in 1845 that clauses had been negligently sanctioned in various private Acts of that Session giving to railway companies general powers of granting or accepting leases or sales of their own or other lines; and a public Act was hastily passed[1] making void these general powers, and requiring in all future cases the authority of a distinct statutory provision specifying by name the railway to be leased or transferred and the company making and accepting such lease or transfer. The Commons' Committee of 1846 urged that no general powers of this nature should be allowed in any future Railway Bill; and that in all cases of railway amalgamation the rates and tolls of the amalgamated companies should be subjected to revision.

Railway competition as check to railway monopoly.

General powers of leasing and selling railways.

Much benefit had been hoped on this and other points from the guidance of the Railway Department of the Board of Trade. Mr. Gladstone's Committee in 1844 made a complaint, already mentioned, that hitherto Committees had not examined Private Bills systematically with reference to public interests, and suggested that reports should be made by the Board of Trade for the information of Committees on all Railway Bills, especially when they contained provisions novel

Board of Trade (Railway Department).

tation of time. In 1884, however, upon an opposition by steamboat owners, a Committee in the Commons limited to fourteen years a renewal of the steamboat powers of the London and North Western Railway Company, on the ground that such powers required revision from time to time in the public interest. (L. & N. W. Ry. Act, 1884, s. 75.)

[1] Railway Leasing Act (8 & 9 Vict. c. 96). See also Railways Clauses Act, 1845, ss. 87, 92, 93; and Railways Clauses Act, 1863, ss. 22—29.

in principle, or involving considerations of public policy, such as amalgamations and agreements between separate companies.[1] Up to this time Bills embodying railway amalgamations had usually been unopposed; and in conformity with the usual practice, unless they were opposed by individual petitioners, they received little attention and were regarded as only affecting the private interests of the amalgamating companies. The Board of Trade urged, with reason, that such extensive transfers, not only of property, but of powers and privileges conferred by Parliament, should no longer be treated as mere matters of course, but as raising important questions of public policy.[2] It is clear that, in sanctioning the early Railway Acts without safeguards in the public interests, Parliament acted under a misapprehension. The theory that railways would be used by the engines and carriages of private traders, upon payment of certain tolls, explains the fact that railway companies, like the trustees of turnpike roads, were authorized to lease their tolls. When it became clear that a common user of railways was impracticable, and that companies must possess complete control over their lines, it followed that they would thereby acquire a complete monopoly of the means of communication; and it followed also, that upon Parliament devolved a corresponding obligation "to secure the public as far as possible from any abuse which might arise under this irresponsible authority."[3]

Early railways, working of, imperfectly understood.

Lease of railway tolls.

[1] Fifth Report of Railway Committee, 1844. The Leeds and Selby Railway, after its transfer to the York and North Midland Company, had become useless to the public. Several similar cases are mentioned by the Committee, who add:—"These important questions of principle have been treated slightly and superficially; the demands of companies have not been, and scarcely could have been scrutinized unless there were opposing parties in the field; and there have been many such demands, not resisted by any particular interests, which, nevertheless, it would have been important to sift and investigate in the interests of the public."

[2] Railway Department of Board of Trade, Report on Proposed Railway Amalgamations, May, 1845.

[3] Report of Commons' Committee of 1839, of which Sir Robert Peel was chairman. The Committee of 1840 report to the like effect:—"At the time when Parliament first sanctioned any extensive lines of commu-

Proposed amalgamations in 1845.

It was in this spirit, and fortified by high authority, that the Railway Department of the Board of Trade approached the consideration of the numerous amalgamation schemes of 1845. Their report contained an able and impartial statement of reasons for and against amalgamation. A railway company, they thought, might have a direct pecuniary interest in the sale of its line to a powerful neighbour, with a view to its being wholly or partially shut up; and all hope of effective competition between railways must be abandoned if companies were allowed unlimited powers to form "permanent and indissoluble combinations against the public the very moment they discover that monopoly may be more profitable than competition." On the other hand it was undeniable that the public as well as the companies might often derive benefit from amalgamation. There were then many small independent links in what should have been continuous lines of communication, and worked under one management.[1] Serious hindrances often arose in the working of through traffic from the conflict of interests, and the want of any supreme control. The inconveniences and delays to passengers in the journey from London to Liverpool, were repeated on almost every through route in the kingdom. Even when companies owning the various links along these routes were in friendly relations, the want of a united interest and uniform management was conspicuous. It happened too often that hostile interests arose, and then the public, who had no redress, were the chief, though not the only sufferers.[2] Another,

Independent links in railway communication.

Traffic impeded by conflicting railway interests.

nication, the subject was imperfectly understood; powers were consequently conceded to these companies which counteracted and rendered of no avail the evident purposes of the Legislature."

[1] Between London and Liverpool the line belonged to three companies. Three separate systems also intervened between Bristol and Leeds.

[2] In Mr. Laing's Report of 1844, some instances are given of disputes between companies: "For two years the public have been deprived of cheap access to the London Bridge terminus, and of the benefit of low fares on the Croydon Railway, owing to a dispute between the Croydon and Greenwich companies as to the amount of toll to be

though a minor reason, in favour of amalgamation was the economy arising from consolidated staffs and management. A strong case was thus presented for amalgamation under proper conditions. The Board of Trade, however, recommended a postponement of all Bills proposing arrangements of this nature, until "further experience had been gained of the true interests and relations of the companies and the public, and of the efficacy of any legislation against undue monopolies."

Report against amalgamation.

Among the pending schemes in 1845, the chief was one for an amalgamation of three companies now forming part of the London and North-Western system, and then having a common terminus at Liverpool—the Grand Junction, Liverpool and Manchester, and North Union. For the first time in the history of these absorptions a strong local opposition was threatened, and memorials against this project reached the Board of Trade from local bodies and traders at Manchester, Liverpool, Bolton, and even Belfast. It was objected that the united companies would have an obvious interest in preventing the construction of new lines to Liverpool, Birkenhead and Fleetwood, and in diverting traffic from the two last-mentioned ports. In order to meet the objection of monopoly, the Liverpool and Manchester Company offered guarantees which were then thought material, though they now only cause amusement by the contrast they suggest with the increased facilities for traffic now voluntarily afforded. The company would, they stated, bind themselves not to exceed their present charges on

Liverpool and Manchester, &c. Amalgamation Bill.

paid by the former for the use of one and three-quarter miles of the Greenwich line. The extent of inconvenience to the public may be judged of from the fact that the number of passengers using the Croydon Railway in the course of the year fell off more than 200,000, owing to the dispute and consequent increase of fares, and that the Croydon Company were actually on the point of abandoning their traffic altogether." Owing to disputes between the railway companies whose lines terminated at Preston, separate stations were erected at great expense, and passengers proceeding through were compelled to walk 200 yards, without shelter, from the carriages of one company to those of the other.

passengers, which were at the rate of a little under 2½*d.*, 1½*d.* and 1*d.* per mile for first, second and third class passengers respectively; they would also run at least two third class trains a day each way, protected from the weather.[1] Increased advantages for mineral or goods traffic were not offered. The Board of Trade thought these guarantees insufficient, gave weight to the local objections already mentioned, and reported on public grounds against the amalgamation. Committees of both Houses, however, arrived at a different conclusion, and the Bill became law.

Lords and Commons' Committees on Railways, 1846.

Parliament, it will be seen, had shown no little jealousy of interference in its Private Bill legislation by the new Department of the Board of Trade, and Committees disregarded their recommendations in the two most important projects of 1845.[2] A new experiment in the same direction was, however, tried. A Committee of the House of Lords was appointed in 1846 to consider the subject of railway legislation. The House of Commons appointed a second Committee on the same subject. Both these Committees concurred in recommending the creation of a new department, which should make preliminary investigations into all railway schemes, and be charged with a general control and supervision of railways. Accordingly, in 1846, an Act was passed[3] establishing a Board of Commissioners of Railways, to whom the statutory powers of the Board of Trade were transferred.

Railway Commissioners.

Their duties.

As defined by the Act, the duties of this new body were to see that railway companies did not contravene the provisions of their special Acts, or of any general statutes affecting them; to report to Parliament, if so directed, upon any pending

[1] The London and North Western Railway Company now (1885) run fourteen trains daily between London and Manchester, and thirteen between Manchester and London. All are express trains, and carry third class passengers.

[2] In August, 1845, the Special Railway Board, constituted in 1844, was abolished, and the practice of reporting on the actual or comparative merits of railway schemes came to an end.

[3] 9 & 10 Vict. c. 105.

Railway Bills, especially as to the competition they involved with existing or proposed lines, and any powers sought for acquiring other lines; and to inspect and survey any proposed railways. There were to be five Commissioners; a chairman, with a salary of 2,000*l.*, but not disqualified from sitting in Parliament; two members, with 1,500*l.* each; and two unpaid members. It was proposed that the chairman should be a member of the Government, removable upon any change of administration; the two unpaid Commissioners were also to be members of the Government, so that the new Board might have a representative in each House.[1] Salaries.

Commissioners so equipped were evidently marked out for functions more important than those defined in the Act which constituted them. In 1847 a Bill was therefore introduced enlarging their powers. It made them, in effect, arbiters of all railway legislation. Promoters were not even to survey an intended line until they gave permission. When the survey was made one of their officers was to report upon the project. With them plans and sections were to be deposited; they were to examine into compliance with Standing Orders, and report to Parliament upon engineering merits, and proposed rates. Considerable authority was vested in them over existing railways. They were to report annually to Parliament upon tolls, fares and charges, and upon the regularity or irregularity of trains; they might call for returns as to traffic, and many other details of management; inspect the books and documents of railway companies; and settle disputes between companies having termini or portions of line in common. But the Bill, as might have been expected, aroused opposition from two quarters. Parliament was again jealous of this proposed interference with legislation. Railway companies disliked powers which would, they said, discourage enterprise and injure existing lines, without affording any commensurate public advantage. The measure was received Railways Bill, 1847.

[1] 88 Hansard, p. 892.

Bill withdrawn.

with such general disfavour that it was withdrawn before the second reading.[1] A blow was thus given to the authority of the Commissioners from which they never recovered. In 1848 the new department was partially re-united to the Board of Trade; and in 1851 Parliament put an end to its existence, re-transferring its powers and duties to the Board of Trade.[2]

Departmental reports, their treatment by Committees.

High authority has declared that, owing to the general neglect by Committees of reports laid before them by the Railway Departments, these reports "whether good or bad in themselves, became useless, or worse than useless."[3] This was not the only occasion on which Parliamentary Committees showed themselves averse from acting on the suggestions offered by Government Departments. In 1848 an Act was passed[4] authorizing local and preliminary inquiries by inspectors of the Board of Trade and Admiralty in the case of certain Bills. The object was two-fold: to diminish the expense of Private Bill legislation by taking evidence in the locality in which proposed works were to be constructed; and to save the time of Committees by laying before them this evidence and the inspectors' reports upon it.

Preliminary Inquiries Act, 1848.

Unsatisfactory results.

Neither object was accomplished. What really happened was that opponents of Private Bills heard the promoters' case but reserved their own, and went before Committees with this material advantage; while Committees, finding incomplete materials in the statements laid before them, disregarded the reports as well as the evidence; so that the whole inquiry was gone into again *ab initio*, and the only result was a duplication of expense.[5]

[1] The Bill (Railways, No. 2) contained 111 clauses, with schedules, and may be usefully referred to as an example of the general control over railways and railway legislation which the Government then desired to centre in a Government Department (442 of 1847). No such proposal has been repeated.

[2] 14 & 15 Vict. c. 64. Commons' Committee on Railway and Canal Legislation, 1858, evidence of Capt. Douglas Galton, p. 17.

[3] Joint Committee on Railway Companies Amalgamation, 1872; Report, p. 7.

[4] 11 & 12 Vict. c. 129.

[5] See *post*, Chapter on Preliminary Inquiries.

As the Act, though well meant, was an admitted failure, it was repealed in 1851.[1] Experience has shown, in this as in other instances mentioned in these pages, that Committees to whom either House refers a Bill prefer to act upon their own judgment in deciding as to its expediency,[2] and will not be satisfied with second-hand testimony. They treat Departmental Reports with respect; but, in their view, such reports, after all, only reflect the opinions of individual officials, sometimes preconceived, often founded upon imperfect information supplied from only one source; whereas Committees are supplied with the fullest and most trustworthy information by opponents as well as promoters, and have the best professional aid which both sides can procure in sifting and weighing the facts.

Repeal of Act.

View taken by Private Bill Committees.

In 1845, as the reports of the Board of Trade showed, much was to be said for the absorption of small railways, which could offer no sufficient plea for an independent existence, and hindered the continuous flow of traffic. Amalgamations, however, went on so rapidly as to arouse grave anxiety in Parliament. In 1846, upwards of 200 bills were promoted by railway companies for acquiring or controlling canals. Again, after the revival of speculation in 1853, amalgamations of such importance were proposed that the House of Commons appointed a Select Committee, over which Mr. Cardwell presided, to consider, among other questions, "the principles which ought to guide the House" in its legislation upon projects of this class. The Committee heard much evidence, and made five reports. On general grounds of policy, they suggested that amalgamation between railway companies should be discouraged. It was better, they thought, to have working arrangements for the regulation of traffic and division of profits. These

Mr. Cardwell's Committee, 1853.

[1] By 14 & 15 Vict. c. 49, which limited these enquiries to works affecting navigation; and see 25 & 26 Vict. c. 69.

[2] See *post*, p. 121.

arrangements between railway companies should, after limited periods, be subject to revision by the Board of Trade.

Proposed union of London and North Western and Midland Railways.

In 1853 there was a Bill, which caused much alarm, for the amalgamation of the London and North Western and the Midland Railways. Mr. Cardwell's Committee reported against the scheme, on the ground that it would involve the union "under one control, of a raised capital of 60,000,000*l.*, between one-fourth and one-fifth of the railway property of the kingdom; an annual revenue exceeding 4,000,000*l.*; and an extent of railway communication of upwards of 1,200 miles, or more than one-sixth of the railways in the United Kingdom, forming, from the importance of the towns with which it is connected, a key to the principal communications of the country." The Chairman of the Great Northern Railway Company told the Committee that, if the proposed amalgamation were permitted, it would be impossible for his company to maintain its independence; and much evidence to the same effect was given by the managers of some of the other great railway companies. These witnesses agreed that lines might be amalgamated up to certain limits, with economical results in working and management; but that when the lines involved 60,000,000*l.* of capital and 1,200 miles of railway, those limits were far exceeded, and for its own convenience so vast a company must sub-divide its management.[1] The intended combination of interests, overwhelming as it then appeared, was prevented, no doubt wisely, by this inquiry. Neither the Committee nor the opposing railway managers could foresee that, within thirty years, the capital, the revenue and the mileage of each of the companies proposing this union would far exceed what these would have been in 1853, if united, and that the annual revenue of one of these companies alone would be

[1] Report of Commons' Committee of 1853 on Railway and Canal Amalgamation; Evidence of Managers of Great Northern and Great Western Companies.

two and a-half times greater than the income which then appeared portentous if placed under one control.[1]

Conflicting decisions by Committees.

Mr. Cardwell's Committee endeavoured to ensure greater uniformity of decision on Railway Bills by Private and Public Committees. They pointed out that, on the question of gauge, as of amalgamation, what Parliament on the one hand endeavoured to settle by means of general inquiry or legislation, Parliament also, on the other hand, at once proceeded to unsettle, in adopting the decisions of Private Bill Committees, which examined the special circumstances of each case. One remedy suggested for this inconsistency was the appointment of a General Committee, from which the Chairmen of the Committees on all Railway Bills should be selected. This suggestion was carried out in 1854, and in practice has proved of great value, by giving to the House of Commons, for permanent service in presiding over its Committees, a body of more or less trained members acquainted with the principles of private legislation affecting railways. Another suggestion made by the Committee, and also carried out in 1854, was that the Board of Trade should report upon the Railway Bills of the year in order to inform Committees whether these Bills contained any exceptional legislation.

Chairmen's panel for Railway Bills.

Board of Trade Reports.

Progress of railway amalgamation.

The precautions thus taken, and the renewed disapproval of railway amalgamations in 1853, did not hinder Committees from passing, as before, Private Bills promoted with this object. Thus, the North Eastern Company,[2] which, in 1845-7, by the absorption of small lines in their district, had become owners of 274 miles of railway, acquired in 1854 the York and North Midland and other lines. They now own 1,534 miles, holding almost exclusive possession of the north eastern counties, with an authorized capital of nearly 61,500,000*l.*[3] By amalgamations sanctioned

North Eastern Railway.

London and North

[1] Board of Trade Returns of Railways, 1884.

[2] So named in 1854, having before been successively known as the York and Newcastle, and the York, Newcastle, and Berwick.

[3] Board of Trade Returns, pp. 22, 52, extending to the close of 1883.

Western Railway.

in 1846, notwithstanding adverse reports from Lord Dalhousie's department, the London and North Western then owned 379 miles of railway. In 1859, the objections of Mr. Cardwell's Committee notwithstanding, they were permitted to acquire the three Welsh lines to Holyhead, and by a long succession of statutes their system now extends over 1,793 miles, with an authorized capital of 105,940,000*l.*[1]

Great Western Railway.

The Great Western Company originally consisted of 118 miles. By gradual accretions, dating from 1844, their system was extended, and in 1854 they, too, succeeded in persuading a Committee to exempt them from the rule suggested in 1853, and to give them possession of the Shrewsbury and Birmingham and Shrewsbury and Chester lines. The Great Western has now expanded from 118 to 2,268 miles, the longest railway system in the United Kingdom, with an authorized capital of 75,800,000*l.*, not including permissive powers unexercised, subscriptions to other undertakings, and capital raised jointly with other companies.[2]

Royal Commission on Railways, 1865-6.

In following the progress of railway amalgamation to its present, though not probably its final ending, two general enquiries into this subject have been passed over, but deserve prominent mention here. In 1865-6 a Royal Commission was appointed on railways. It consisted of persons of great authority[3] who devoted their attention chiefly to questions of

[1] Board of Trade Returns on Railways, 1884, pp. 16, 50. The London and North Western Railway Company took this name in 1846.

[2] Ib. pp. 10, 48. The Great Western system consists of 116 railways, which were separately authorized. In 1885 its total mileage, including lines jointly owned, was 2,553. So the original Eastern Counties line, 139 miles long, now the Great Eastern, has 1,049 miles of railway, and a capital of 41,656,000*l.* The Midland, 180 miles long, when so named in 1844, has, by continual expansion, attained a mileage of 1,381, with an authorized capital of nearly 76,549,000*l.*, and its subscriptions to other companies amount to nearly 7,000,000*l.* more. In Scotland, the Caledonian and North British Companies show a similar record.

[3] The Royal Commissioners were the Duke of Devonshire, the Earl of Donoughmore, Lord Stanley, Mr. Leveson Gower, Mr. Robert Lowe, Sir Rowland Hill, Mr. Roebuck, Mr. Horsfall, Mr. Dalglish, Mr. Glyn, Mr. A. S. Ayrton, Captain

rates and interchange of traffic, with a view to greater economy in working and a reduction in railway charges. All they say about amalgamation is that it should not be allowed "without affording to Parliament the opportunity it now possesses of determining the conditions under which such amalgamation should be permitted."[1] They regarded amalgamation as a question of public policy over which Parliament should not relax its control. But they were not opposed to it in principle, and were of opinion that in Ireland public benefit would result from amalgamation, and that facilities for it there should be afforded by Parliament.

Joint Committee of 1872.

From its constitution and labours the Joint Committee which in 1872 enquired into railway amalgamations was the most important Committee on Private Bill legislation since that of 1853.[2] They arrived at conclusions somewhat similar to those of the Royal Commission. Fusion between railway companies within certain limits they regarded as inevitable; for one reason because the companies can by mutual arrangement, without Parliamentary intervention, secure many of the results of complete fusion under statute. Nor would it be fair, in the opinion of the Committee, either to the companies or to the Private Bill Committees which have sanctioned amalgamation, "to assume that the public interest has been overlooked in the passing of such Bills. It is generally easy to show that the public will gain largely by harmonious arrangements; and considering how doubtful is the extent of

Advantages of railway fusion.

Douglas Galton, Mr. E. T. Hamilton, and Mr. J. R. McClean. They investigated the management of foreign as well as English railways, and reported in 1867 [3844]. The minutes of evidence occupy a huge volume [3844 I.]; there are also two volumes of appendices [3844 II., III.].

[1] Report of Royal Commission on Railways, p. 91.

[2] Six members of each House were appointed—the Marquis of Ripon (then Lord President), the Marquis of Salisbury, the Earl of Derby, Earl Cowper, Lord Redesdale, and Lord Belper; Mr. Chichester Fortescue (President of the Board of Trade), Mr. Childers, Mr. Cross, Mr. Ward Hunt, and Mr. Dodson. Mr. Chichester Fortescue was chairman. The report and minutes of evidence occupy nearly 1,300 pages.

competition, or of the facilities it produces, the balance of advantage, to the public as well as to the shareholders, may often well be thought to be on the side of amalgamation."[1] Experience, they added, showed that amalgamations of some kind were expedient as well as inevitable; and they could make no better suggestion than that each amalgamation scheme should be "dealt with as it arises," after careful consideration by a Joint Committee specially selected, as to "its bearing on other amalgamation schemes and on the general railway system." There might be cases of "amalgamations so large as to be of doubtful policy"; and the Committee pointed out "the possible ultimate dangers of unlimited combination." On the other hand, they were of opinion that there were "still cases in the United Kingdom in which amalgamation is desirable and ought to be encouraged."[2]

In effect, this report justifies the decisions of Private Bill Committees upon proposals for railway amalgamation, which, as may fairly be assumed, have been approved only upon clear evidence in each case that amalgamation would be of public advantage. The history of the leading railway companies, as we have seen, is one of progressive growth in the area they cover, in capital and in influence. It seems hard at first sight to reconcile this vast expansion and apparently over-

Inquiries by public and by private committees.

[1] Report, p. 27. The Committee give as "a striking illustration" of this opinion the case of the North Eastern Railway:—"That railway, or system of railways, is composed of thirty-seven lines, several of which formerly competed with each other. Before their amalgamation they had, generally speaking, high rates and fares and low dividends. The system is now the most complete monopoly in the United Kingdom. From the Tyne to the Humber, with one local exception, it has the country to itself, and it has the lowest fares and the highest dividends of any English railway. It has had little or no litigation with any other companies. While complaints have been heard from Lancashire and Yorkshire, where there are so-called competing lines, no witness has appeared to complain of the North Eastern; and the general feeling in the district it serves appears favourable to its management." Since 1872 the Hull and Barnsley, an independent railway, has been sanctioned in the North-Eastern district, and the Cawood and Church Fenton, with other lines, have been promoted in connection with it.

[2] Ib. pp. 41, 42.

weening monopoly, each step towards which has been sanctioned by Parliament in its Private Bill legislation, with the almost unvarying opposition to amalgamation by public Committees and Departments. The Joint Committee of 1872 cite many facts to prove "that the general recommendations and resolutions of Committees, Commissions or Government Departments, have had little influence upon the action of Private Bill Committees, and have not stayed the progress of the companies in their course of union."[1] Amalgamation, said one witness, had followed amalgamation in an increasing ratio immediately after reports against amalgamation.[2] The Royal Commissioners, in 1867, gave the true explanation of this seeming antagonism:—"Attempts to guide Committees have invariably failed, because all Committees necessarily look upon the merits of the particular case before them, just as a jury does, and will not act upon principles of general policy as laid down by another Committee, when the justice of the case before them appears to render a departure from such general principles necessary."[3]

Rejection or withdrawal of Amalgamation Bills.

But the decisions have by no means been uniformly favourable to amalgamation. In 1867, the Midland Railway Company's Bill for amalgamation with the Glasgow and South Western was rejected. The same attempt was

[1] Report, p. 16.

[2] Evidence of Sir T. H. Farrer, Permanent Secretary to the Board of Trade, ib. p. 720.

[3] Report, p. 20. And the Royal Commissioners elsewhere give their opinion to the like effect:—"It is a necessary consequence of the constitution of these Committees, and of the manner in which the business is conducted, that they should look to the merits of the special case entirely through the medium of the facts brought to their notice. It is not to be expected that they would act on grounds of general expediency which might appear to inflict hardship on the parties actually before them. Moreover, no Committee, in which are vested what are practically absolute powers, would consent to defer its opinion to any general dictum given by another tribunal. In considering the case before it, the Parliamentary Committee looks upon itself as, and practically becomes, an independent Court of Appeal from any such general rules previously laid down, and from the decisions of any previous Committees which may have sat in former Sessions upon the same case." Ib. p. 42.

repeated in 1872, but failed. In 1866 Parliament allowed the absorption of the Scottish North Eastern line by the Caledonian Company.[1] Encouraged by this success, the Caledonian and North British Railway Companies promoted a Bill for amalgamation, and wished to include the Glasgow and South Western, in which case competition in Scotland would have ceased altogether;[2] but its prospects of success were so small that the Bill was withdrawn. The failure, in 1853, of a project for merging the Midland with the London and North Western Railway has been already mentioned.[3] In the same year the same fate befel a Bill for fusing the London and South Western and Brighton Companies. In 1868 the South Eastern and Brighton Companies promoted a Bill "for establishing a working union" of these two Companies, with power to the Chatham and Dover Company to come in. That attempted combination also failed. In 1872 a Bill was promoted for an amalgamation between the London and North Western and Lancashire and Yorkshire Companies. This, and other proposals of the same character, gave rise to the inquiry of 1872. It was postponed till the year following, but was then unsuccessful. In several cases of minor importance amalgamation Bills have been rejected after patient inquiry.

Thus the powers given to Committees have not been exercised without discrimination, and while the general inquiries instituted by Parliament applied as a rule to abstract prin-

[1] 29 & 30 Vict. c. 350. To procure the assent of Parliament to this amalgamation, the Caledonian Company gave the largest facilities, as to through booking and running powers, which have yet been inserted in any railway Act. In like manner, the London and Birmingham and Grand Junction Railway Companies offered to accept reduced tolls and rates as a condition of their amalgamation. Parliament also forced the same tolls upon the Great Western Company, on their amalgamation with the Birmingham and Oxford line in 1847. A valuable *quid pro quo* was therefore obtained for the public in all these cases.

[2] Joint Committee of 1872; Minutes of Evidence, p. 36.

[3] And see evidence of Mr. Allport, ib. p. 40.

ciples of policy, Private Bills have been judged upon precise evidence and argument as to the expediency or inexpediency of amalgamations in particular cases. Indirectly the influence of Committees has no doubt had the effect of discouraging plans of railway amalgamation which would not bear the test of close inquiry as to their effect upon public interests. In other respects the same influence has been useful in keeping railway companies to their engagements: as when in 1869 the Midland Company were not allowed to abandon their Settle and Carlisle line, and when in 1855 a Committee inserted clauses in a South Western Railway Bill, suspending the Company's dividends, unless in the next Session they applied for powers to construct a new line to Exeter, which they had pledged themselves to make.[1] These are high legislative powers which may be justified on grounds of public policy, but could not be safely delegated to local authorities or to any fixed tribunal.

Railway companies kept to their engagements.

A provision already noticed in the Liverpool and Manchester, and some other Railway Acts, reserved to Parliament the right of revising the rates charged on traffic, when the dividends reached ten per cent. No security, however, was taken in these special Acts, or in the analogous general legislation of 1844, for a public audit, which would have ascertained what profits were really made by railway companies; and the power, hereafter noticed, of issuing new shares at a premium, enabled companies to reduce dividends, while securing equivalent profits to shareholders, by increasing the capital value of their holdings. Before 1845, each special Act provided for the keeping of proper accounts by the incorporated company. In that year the usual clauses upon this subject were embodied in the Companies Clauses Act,[2] by

Accounts of railway companies.

[1] Sir Erskine May's Practice of Parliament, 9th ed. p. 852; South Western Railway (Capital and Works) Act, 1855.

[2] Sect. 115 *et seq.* The Railways Clauses Act, 1845 (8 Vict. c. 20), provides (s. 107) under penalties that an annual account in abstract shall be prepared for transmission, if required, to the overseers of the poor in the parishes and to clerks of the peace in the counties through which the railway passes. Practically this provision is a dead letter.

which railway directors, in common with those of other companies, were bound to keep full and true accounts of receipts and expenditure; to set forth exact balance sheets half yearly, showing their "capital stock, credits, and property of every description," with the company's debts, and profit or loss; to provide for an independent audit by shareholders; to give shareholders opportunities of inspecting the accounts; to pay dividends out of profits only, and not apply dividends in reduction of capital.

Lords' Committee of 1849.

Four years after the passing of these general provisions, the House of Lords appointed a Committee, with a view to secure a more effectual audit of railway accounts, and guard against the application of the funds of railway companies to purposes unauthorized by Parliament. This Committee recommended that uniform accounts should be furnished by all railway companies, and should embrace the following (among other) particulars:—(1) A full statement of all the company's statutory powers of raising money, showing each undertaking to which they were applicable; and in respect of each Act, the mode in which the money had been raised, the nature of the securities issued, the conditions and rates of interest, the amount of money so obtained, and of arrears, and the balance of capital powers unexhausted. (2) A capital account, explaining how the money raised under statute had been disbursed. (3) An account of ordinary income and expenditure. The Committee also recommended that separate accounts should be kept for separate branches; the creation of a reserve fund; the grant to shareholders of further powers of inspecting accounts; the appointment of a Government auditor to act with the two auditors appointed by the shareholders; and authority to the auditors to call for all books and documents which they might think necessary for elucidating, not only the balance-sheet, but the whole financial condition of the company.

Bills embodying some of these provisions were introduced into Parliament in subsequent Sessions, but did not become law. Public opinion, which had been a good deal moved by

the discovery that railway accounts were sometimes "made pleasant," subsided into a belief that, after all, the cure for misleading accounts rested with shareholders in their choice of directors who were above misleading them. In 1867, however, the Royal Commissioners again called attention to this subject, and recorded their opinion that the law was at least defective in not securing uniform accounts:—"Each railway company is at liberty to adopt the form it considers most convenient, and to vary that form from time to time. The result is, that no adequate means are afforded by which to compare the financial affairs of two railways, or even to compare the accounts of the same railway, from time to time. This uncertainty deprives the public of the power of ascertaining the relative condition of different companies. It deprives one company of the means of profiting by the experience of another; and it leaves shareholders without an adequate check on the governing body."[1]

Opinions of Royal Commissioners, 1867.

Influenced by these considerations, Parliament, in 1868, provided that railway companies should keep uniform accounts, to be prepared half-yearly, according to certain prescribed models.[2] These comprise fifteen different statements showing (1) capital authorized and created by the company; (2) stock and share capital created, and proportion received; (3) capital raised by loans and debenture stock; (4) receipts and expenditure on capital account; (5) details of capital expenditure for half-year; (6) return of working stock; (7) estimate of further expenditure on capital account; (8) capital powers and other assets available to meet further expenditure; (9) revenue account; (10) net revenue account; (11) proposed appropriation of balance available for dividend; (12) abstracts of accounts relating to (a) maintenance of way and works, (b) locomotive power, (c) repairs and renewals of carriages and waggons, (d) traffic expenses, and (e) general charges; (13) general balance sheet;

Regulation of Railways Act, 1868.

[1] Report, p. 23.

[2] 31 & 32 Vict. c. 119, s. 3. The forms of accounts are given in the schedule to the Act.

(14) mileage authorized, constructed, and in working; (15) train mileage. These elaborate accounts must be signed by the chairman or deputy chairman, and by the secretary or accountant. They must be accompanied by a certificate from the engineer "that the whole of the company's permanent way, stations, buildings, canals, and other works have, during the past half-year, been maintained in good working condition and repair," and by a similar certificate as to the whole of the company's "plant, engines, tenders, carriages, waggons, machinery and tools, with the marine engines of the steam vessels."

False accounts.

Any person signing the accounts or other particulars required by the Act, knowing them to be false, is liable to severe penalties, namely, fine and imprisonment, on conviction upon indictment; or £50 fine upon summary conviction.[1] Upon application made by the directors, or by shareholders representing two-fifths in value of the ordinary shares or stock, or by certain proportions of holders of debentures or preference capital, the Board of Trade may appoint "one or more competent inspectors to examine into the affairs" of a railway company and the condition of its undertaking. To these inspectors, or to inspectors appointed by the company itself at an extraordinary meeting, large powers of inquiry are given. Another change made in 1868 was to abolish a restriction[2] which prevented the appointment of an auditor who was not a shareholder of the company, and to authorize the Board of Trade, upon application by the directors, or by shareholders, at any general meeting, to appoint an auditor in addition to the company's auditors.[3]

Examination into company's affairs by Board of Trade.

Audit.

Borrowing powers.

By their special Acts railway companies were generally restricted from borrowing sums greater than one-third of their share capital. When estimates were exceeded, however, and continued outlay became necessary, they were

[1] 31 & 32 Vict. c. 119, s. 5.

[2] By Companies Clauses Consolidation Act, 1845, s. 102.

[3] Regulation of Railways Act, 1868, ss. 11, 12.

often tempted to raise money beyond the amount limited by their statutory powers, in order to avoid the risk and the expense of a new application to Parliament. Among other means adopted to satisfy creditors, was the issue of loan notes, which were negotiable instruments purporting to secure the repayment, at certain dates, of money borrowed by a company. Such loan notes, being issued *ultra vires*, had no legal validity, and could not be enforced. At the same time they were "issued and received in good faith as between the borrower and lender, and, for the most part, for the lawful purposes of the undertaking, and in ignorance of their legal invalidity." Parliament, therefore, in 1844, taking this lenient view, confirmed such of these illegal securities as were then in existence, but for the future subjected railway companies issuing them to heavy penalties.[1]

Loan notes.

A successful attempt to escape from this legislation was made during the evil days which afterwards came upon railways. The prohibition of 1844 applied only to obligations given by railway companies for money advanced to them. But the limit which their special Acts imposed upon their share and loan capital might be, and was, as effectually evaded by giving obligations for debts contracted. A Committee appointed by the House of Lords in 1864 stated that the directors of some railway companies, without consulting the shareholders, and without the knowledge of the statutory debenture holders, had defeated the intentions of Parliament, and incurred obligations to a large amount by the issue of a security called Lloyd's bonds.[2] These obligations were given not for cash advances, but for services rendered, work done, or goods supplied for the purposes of the undertaking; and they represented an outlay in excess of the companies'

Lloyd's bonds

Lords' Committee, 1864

[1] 7 & 8 Vict. c. 85, s. 19. The words quoted in the text are taken from the recital to this section.

[2] A name derived from the astute counsel who drafted these securities. Mr. Lloyd, however, stated to the Lords' Committee of 1864, that the bonds had been applied to purposes which he had never originally contemplated.

Parliamentary powers of raising money. The Committee also reported that the holders of Lloyd's bonds could sue and recover judgments against companies, and that success in any conflict for priority of claim between them and the holders of statutory debentures appeared to be only a question of more or less diligence.

No remedy against the issue of Lloyd's bonds could be suggested by the Committee, but in order that creditors of railway companies should be kept fully informed they recommended a system of compulsory registration of all railway obligations under mortgages, bonds or debentures. In 1866, Parliament accordingly required[1] that every railway company should register half-yearly, at the office of the Registrar of Joint Stock Companies, an account of their loan capital, showing the statutes under which the company had contracted any mortgage or bond debt existing at the end of the half-year, and the amounts (1) thereby authorized, (2) actually borrowed, and (3) remaining unborrowed. Many other particulars were to be supplied for the information of creditors. No company must borrow money until it had registered the Act which gave the power to borrow, and on every mortgage deed, bond or debenture there must be a declaration signed by two directors that the security was issued under the company's borrowing powers as registered at a given date, and was "not in excess of the amount there stated as remaining to be borrowed."[2] False statements made under this Act, if made with knowledge of their falseness, subject directors or officers to fine or imprisonment, a severity which marks the views of Parliament upon the railway derelictions of the period.

Railway Companies' Securities Act, 1866.

Another practice then prevailed, the effect of which was to withdraw railway companies for long periods from the control of Parliament, by asking for capital powers greatly in excess of proposed outlay. In 1846, Mr. Ellice reported, from a Committee on the Hull and Selby Purchase Bill, that the actual outlay and estimates for further works was

Capital powers of railway companies.

[1] 29 & 30 Vict. c. 108. [2] Ib. Schedules 1 and 2.

955,363*l.*, whereas the money to be raised by the Bill was 2,000,000*l.*, exceeding the outlay and engagements of the Hull and Selby proprietors by nearly a million; and that in the Great North of England Purchase Bill, the actual outlay and estimate for additional works was 1,496,796*l.*, while the proposed capital was 4,000,000*l.*, an excess of over 2,500,000*l.* The Committee added that, in their opinion, "it would be greatly for the public interest that some fixed and uniform rules should be clearly laid down by the House for the guidance of their Committees with respect to the whole system of raising capital, loans," and other like questions.

New shares issued at par.

A system, once common, and very lucrative to railway proprietors, was that of distributing new shares among them at par when the existing shares were at a premium. This practice first originated in special Acts, which authorized the raising of additional capital to complete a line when the original estimates had proved insufficient. It was justified on the plausible ground that to the shareholders, who had run the risks, belonged whatever advantages might accrue from the enterprise when its success was assured, and that they were as much entitled to the benefit of new capital legitimately required for the completion of their railway as if this capital had been included in the original estimate. The same argument did not apply when new capital was so raised, not for the completion of authorized undertakings, but for the construction or purchase of other lines; and in such cases shareholders were tempted by large immediate profits to sanction proposals not economical in themselves, swelling the amounts entitled to dividends, and sometimes raising the scale of rates and fares necessary for the payment of remunerative dividends.

General legislation governing issue of new shares.

The Companies Clauses Act, 1845,[1] allowed the conversion of portions of authorized loan capital into share capital unless it were otherwise provided by a company's special Act.[2] If at

[1] 8 Vict. c. 16, s. 56.

[2] In bills by which the profits of companies are limited, the practice is now governed by S. O. 109 (H. of L.).

the time of any such conversion the company's shares were at a premium, the new shares were to be offered to the proprietors in proportion to their holdings.[1] This provision was introduced in order to secure for the proprietary an equal distribution of such shares, as it was thought that they were sometimes unfairly monopolized by directors and their friends. A similar provision, applicable to all new shares or stock, is contained in the Companies Clauses Act, 1863.[2]

Shareholders' gains from share premiums.

In the golden days of railway prosperity, there is evidence that enormous sums were realized by shareholders in the great companies, which obtained the capital for branches, extensions, or amalgamations, by issuing new shares at par when they were at a considerable premium in the market.

London and Birmingham Railway.

For example, it appears that the shareholders in the London and Birmingham Railway received from the issue of new shares, down to 1846, 4,294,825*l.*, while their original outlay was 5,750,000*l.* Mr. Glyn, the chairman of this company, when asked in 1846 whether the branches and amalgamated lines were a loss, or what proportion of dividends they contributed, replied :—"We do not know the proportion; but as the shares have been created and issued in every instance to the proprietors, they reap the benefit of the profit arising from the whole concern; we treat it as one." "So that, whether you require capital to make a branch, or an extension, or improvements of stations, or whether you subscribe to other lines, the capital is provided in the same way in each case?" And his answer was—"Exactly in the same way, by the issue of new shares."[3]

[1] 8 Vict. c. 16, s. 58.

[2] 26 & 27 Vict. c. 118, s. 17.

[3] Commons' Committee on Railway Acts Enactments, 1846; Min. of Evidence, pp. 111, 112. "Heavy as the original cost of the London and Birmingham line was, nearly the whole of it had been returned to the proprietors (in premiums) by 1846, and the two subsequent Sessions supplied them with opportunities for large additional issues. The Manchester and Liverpool was at least equally productive in proportion to its extent. It would have been astonishing, indeed, if new schemes for branches, extensions, and the various other channels of expenditure, requiring new issues of shares, had not been urgently called

Mr. Hudson, when examined in 1846, explained the working of this system in the following evidence:—"Can you state what the proprietor of a 50*l.* share in the York and North Midland would have obtained in the way of premiums upon the different issues?"—"Many men cannot hold; they are obliged to sell." "Supposing a man had purchased a 50*l.* share, and held it from the beginning?"—"I should think it would be about 250*l.*" "So that an original proprietor of 50*l.*, if he had held it, would have received upon that 50*l.*, in the way of premiums upon new shares, 250*l.*?"—"Yes."[1] Thus the premiums received by holders of York and North Midland original shares amounted to five times their outlay; and as the original share capital was 1,500,000*l.*, the premiums reached 7,500,000*l.*[2] Mr. Hudson also stated in 1846, that by an arrangement between the Newcastle and Darlington and the Great North of England Railway Companies, it was stipulated that the latter should receive ten per cent. on every 100*l.* share until 1851, when they could claim to be paid off in four per cent. stock at 250*l.* a share; thus creating a new nominal capital of 250*l.* for every 100*l.* share.[3] He stated further, that, to meet a purchase by the Newcastle and Darlington Company, new shares were issued to the proprietors at par, when they were at a premium of 20*l.* The result was to reduce dividends by constructing, or taking over, on high terms, lines relatively inferior to the parent system in the power of earning revenue; at the same time giving to shareholders opportunities of making large profits by the sale of the new issues.[4]

York and North Midland Railway.

for by the shareholders. The desirableness of the new schemes, with reference to the permanent interest of the company, was at that time a secondary consideration. It was enough that in the then state of the market they would richly reward the existing proprietors; future proprietors must shift for themselves."—Influence of English Railway Legislation on Trade and Industry (1848). By James Morrison, M.P., p. 56.

[1] Commons' Committee on Railway Acts Enactments, 1846, Second Report; Min. of Evidence, p. 239.

[2] Ib., p. 232.

[3] Ib., p. 251.

[4] This was the perhaps justifiable retort afterwards made by Mr. Hudson to his shareholders' complaints

Reduction in dividends thought prudent.

The reduction in dividends thus occasioned was generally foreseen, and sometimes was even desired. In some cases revenue was so large that directors thought it prudent to construct or acquire comparatively unproductive lines in order to lower dividends which might otherwise appear excessive. The process was described to the Committee of 1844 by a prominent witness, Captain Laws,[1] one of the most experienced railway managers of his time:—"There is the York and Scarborough line, a single line of rails from York, over a poor country almost all the way to Scarborough, which is a little fishing town on the coast of Yorkshire.[2] York and Scarborough shares are at 17*l.* premium, 2*l.* 10*s.* paid, and they are worth the money, because the line is amalgamated with the York and North Midland. That company will have a revenue sufficient to divide twenty per cent., but they look upon that as rather dangerous, and therefore they say, 'We will throw out a branch to Scarborough, and get ten per cent. upon that line, which of itself might not pay two per cent., and the same upon the Leeds and Selby line. If we can get ten per cent. upon all this, it comes to the same thing, and is much safer and more certain to retain than to be getting twenty-five per cent. upon a line from York to Methley.'"[3]

London and North Western Railway, 1880.

The practice has survived till later times. Thus, in 1880, the London and North Western Railway Company issued to their proprietors four million pounds of new stock at par,[4] the

of reduced dividends:—"The new lines may be at first a charge upon the old ones, because it takes three years to develop the resources of a line. But if you receive smaller dividends for a time, it will be upon a larger capital, and you must bear in mind who has received those shares. The proprietors have received them, and they must recollect that a part of their profits have been derived from this source, whether they have retained or sold these extension shares."—Speech at half-yearly meeting of Midland Railway Company, Feb. 19, 1848.

[1] Then general manager of the Leeds and Manchester Railway.

[2] Forty years ago, the "queen of northern watering-places" might be thus described without offence.

[3] Mr. Gladstone's Committee of 1844, Fifth Report; Min. of Evidence, p. 481.

[4] Resolutions of Special General Meeting, May 6, 1880. The capital

100*l.* stock being then at over 161*l.* This was an exercise by the company of capital powers conferred by eight Acts passed in the Sessions 1877-9. Each special Act of this description confers general authority on the company from time to time to raise for the purposes of their Act (and sometimes for the general purposes of their undertaking) by the creation and issue of shares or stock, such capital as they shall think necessary, not exceeding "the amount estimated for the particular works contemplated, exclusive of the capital which they are or may be authorized to raise by any other Act or Acts of Parliament; and the company may create and issue such shares or stock, either wholly or partially as ordinary, or wholly or partially as preferential shares or stock as they may think fit."[1] This common form of powers authorizing the issue of capital, as it is not controlled by general legislation, leaves railway companies free either to issue at par, making their shareholders a present of the premiums, whatever these may happen to be, or to appropriate the improved value of the stock or shares to the purposes of the undertaking.[2]

Special Acts as to issue of shares or stock.

The difference between the result of these two processes is obvious. Issues at par when shares are at a premium burden the undertaking with a permanent addition to its capital beyond what is necessary for the special purpose authorized by Parliament. Actual outlay on construction or purchase is not represented by such issues of shares or stock;

Result of par issues.

so issued was to be paid by nine instalments, the last of which was due July 1, 1884. It was equivalent to a bonus of some £2,440,000, distributed among the owners of ordinary stock. At the same meeting resolutions were passed for the issue of £1,752,500 preference stock "at such times, to such persons, on such terms and conditions, and in such manner as the directors may think advantageous to the company." These are the words of sect. 21, Companies Clauses Act, 1863.

[1] London and North Western Railway (Additional Powers) Act, 1879, s. 43.

[2] The London and North Western accounts for the half-year ending June 30, 1883, show among receipts on capital account a sum of 3,754,000*l.* received as "premiums on issue of stock and shares."

a smaller issue of shares or stock would have sufficed for the purposes of the company but for the bonus distributed among the proprietors.[1] It follows that, if we treat railway companies as continuing bodies, dividends alone are no test of railway profits. New shareholders stand in a different category;[2] they receive dividends on a capital often very largely in excess of actual requirements. The practice was and is justified by railway companies on the ground that it is immaterial whether their shareholders receive increased dividends on smaller capitals or smaller dividends on larger capitals; this is a point which concerns the proprietors alone. It may be true that the public are now only indirectly concerned. The position was different when there was a prospect that the Act of 1844 would take effect. "If," it was said in 1846, "the rate of dividend is to determine whether the scale of fares shall be subjected to revision by the Government on behalf of the public, it is of the very first consequence that railway capitals should correspond with actual outlay. It may be the same thing to permanent proprietors whether they pocket large bonuses, and increase their capitals by sums exceeding, by the amount of such bonuses, the money laid out on their railways, and receive proportionably smaller dividends; but it is a very different thing to the public, if the scales of fares are to be governed by the rate of dividend, whether they pay high fares or low fares."[3] Although these considerations no longer have any

[1] On the other hand the capital of some unprosperous railways has been reduced, as a condition of their amalgamation with other companies, to amounts greatly below actual expenditure. For example, the Oxford, Worcester, and Wolverhampton Railway Company, whose ordinary capital was 1,400,500*l.*, received 980,350*l.*, or seventy per cent. of their outlay; the South Devon, who had spent 1,569,665*l.*, received 1,098,766*l.*, also seventy per cent., upon their amalgamation with the Great Western.

[2] Prior to 1846, the French Government refused to allow the Paris and Rouen Railway Company, whose shares were at a premium, to issue new shares to the proprietors at par, on the ground that the rights of future proprietors would thereby be compromised.

[3] Draft Report presented to Committee on Railway Acts Enactments, 1846.

practical bearing, it is well to remember that, for the reasons mentioned, the gross amount of railway capital in some cases largely exceeds the actual cost of railways in this country.[1]

Issue of shares at a discount.

To the prosperous days when new shares bore high premiums succeeded days of adversity when some railway companies were compelled to raise capital at serious sacrifices. As to the issue of shares or stock at a discount, legislation has varied. If, when fresh capital was created by any company, its shares were not at a premium, it was authorized, in 1845, to issue new shares "in such manner, and on such terms," as it thought fit.[2] In 1863, companies were not allowed to dispose of new shares or stock for less than "the full nominal amount."[3] This restriction was, however, repealed in 1869,[4] so that, unless prohibited by the terms of their special Act, companies are now free to issue new shares or stock at a discount.

London, Chatham and Dover Railway.

By this mode of raising money, whether with or without express statutory sanction, the nominal capital of some railway companies largely exceeds the sum represented by their works and plant. Thus, out of the whole capital of the London, Chatham and Dover Railway, amounting in 1866 to 16,683,000*l.*, it was admitted that not less than 4,109,000*l.* had been dissipated in obtaining the rest from the public, and 1,948,000 more was disbursed out of capital for payment of interest and dividends.[5]

Statutory relief to railway companies.

In the financial crisis of 1867, and at other periods, it has been necessary for Parliament to relieve railway companies from the full discharge of their

[1] For statistical, if for no other purposes, an interesting return would be one showing the new shares or stock issued by railway companies at par when their ordinary shares or stock were at a premium, and the amount thus divided among railway proprietors by way of bonus. A similar return of such issues at a discount, and of capital reduced upon amalgamation, would then enable us to fix something like the actual outlay on British railway undertakings.

[2] 8 Vict. c. 16, s. 60.

[3] Companies Clauses Act, 1863 (26 & 27 Vict. c. 118, s. 21).

[4] Companies Clauses Act, 1869 (32 & 33 Vict. c. 48, ss. 5—8).

[5] Royal Commission on Railways, Report, p. 38.

liabilities, and to postpone or abate the statutory rights of creditors. Such legislation was only to be justified in the public interest with a view to preserve a line for traffic, do equal justice to creditors, and secure as much as possible from the wreck for shareholders. As fresh capital was absolutely necessary for the purposes of companies in this position, Parliamentary Committees now for the first time were asked to sanction, and found themselves reluctantly obliged to sanction, the creation of pre-preference stock or shares, postponing the rights of shareholders who had a first claim upon the company's assets. To have refused such arrangements on the ground that railway companies had spent their capital improvidently, would merely have aggravated the evil, punishing innocent shareholders by completing the ruin of their undertaking, and possibly closing the line for public traffic.[1] It is a painful chapter in the history of railway legislation, but must not be passed over.

Pre-preference shares.

Caledonian Railway.

The first important Act of this description was passed in 1851,[2] for the relief of the Caledonian Railway Company. It recited a number of guaranteed and preferential dividends due under statutes to the proprietors of lines absorbed into the Caledonian system. These claims, with the interest on borrowed capital for which the company were liable, exceeded their whole available revenue. In consideration, therefore, of their embarrassments, the company's creditors agreed to abate a portion of the sums annually due to them. But the recitals to this effect did not set forth the whole difficulties of the company, who were "also indebted in a large amount to unsecured creditors on account of land, cost of works and plant, working expenses," and other claims. To prevent loss to all interests, as well as "serious inconvenience and injury to the public," and also to complete the authorized works, the company were empowered to raise further capital. Certain fixed annuities were secured to the guaranteed companies,

[1] Royal Commission on Railways, Report, p. 38.

[2] 14 & 15 Vict. c. 134 (Caledonian Railway Arrangements Act, 1851).

who agreed to take less than the amount to which they were entitled under the Acts by which they had handed over their respective undertakings. In return, they were authorized, in the event of non-payment, to appoint a judicial factor for the collection of revenues upon the lines over which their lien extended, and, after paying working expenses and other charges, retain the balance.

North British Railway.

In 1867, the North British Railway Company found it necessary to promote a Bill to relieve them from similar difficulties.[1] Their authorized capital was then 15,641,000*l.*, of which a considerable proportion was not called up, but they could not provide the means for carrying on their undertaking, and their affairs had for some time before been in an embarrassed condition, complicated by the fact that "irregularities had occurred in the application of monies derived from capital and revenue." Certain sums which, "according to strict principles or preferable usage, were chargeable to revenue, had been paid out of capital; and the revenues had to a great extent been applied in paying debts strictly chargeable to capital."[2] A committee of shareholders had investigated the company's affairs, and found that their present and postponed liabilities amounted to 1,875,000*l.* In this case, also, after inquiry, Parliament, in the public interest, interposed to relieve the company from the full discharge of their liabilities.

In 1867 the Great Western Railway Company applied about 700,000*l.* of their net revenue towards paying off loans and other pressing debts, incurred on capital account, which would otherwise have involved the company in serious embarrassment and difficulty. Being thus unable to pay the dividends on certain guaranteed and preferential stocks and shares, the company authorized the directors to issue stocks and shares in lieu of those dividends. Proceedings were thereupon taken by a shareholder, and the Court of Chancery pronounced this issue to be *ultra vires*. It was, however,

[1] 30 & 31 Vict. c. 198; North British Railway (Financial Arrangements) Act, 1867.

[2] Ib.; Preamble.

confirmed by Parliament upon representations of the inconvenience, hardship and loss which would otherwise arise to all parties.[1]

London, Chatham and Dover Railway.

Of these Arrangement Acts the most remarkable was one passed in the same year,[2] authorizing the London, Chatham and Dover Railway Company to raise money for the purpose of satisfying certain urgent claims, and relieving them from their difficulties. The story told in the recitals to this statute is singularly instructive, showing the complicated interests which grow up around a great railway, and the tangle into which its affairs may fall under the influence of financial disasters. The company were originally incorporated in 1853, under the name of the East Kent Railway Company,[3] for making a line from Strood to Canterbury, with branches to Faversham Docks and Chilham. In 1859, under statute, they obtained their present style, and by thirty-four Acts, which at various times extended their undertaking or absorbed other lines, they acquired a system 100 miles in length, with metropolitan stations and termini of great value as feeders to traffic. But they became involved in numerous proceedings taken in the Court of Chancery with a view to settle the mutual rights and liabilities of the different interests absorbed, the priorities of the respective capitals, and the validity of certain leases and working agreements. Moreover, "by reason of the incomplete state of the company's undertaking and the undeveloped condition of their traffic," they were "unable to pay interest on their deben-

Preamble to Arrangement Act of 1867.

[1] See preamble to Great Western Railway (Dividends) Act, 1868, 31 & 32 Vict. c. 54. What occurred was this:—During the panic of 1866, the company, being borrowers on loans and debentures to the extent of some 13,500,000*l.*, were unable to raise money to pay off some of these debentures and for other capital purposes. They applied the net revenue of the line, which, after paying the debenture interest, amounted for the year ending July, 1867, to 775,540*l.*, to the redemption of these loans; and therefore they desired to pay, and did pay, the dividends to their ordinary shareholders in six per cent. stock.

[2] 30 & 31 Vict. c. 209; London, Chatham and Dover Railway (Arrangements) Act, 1867.

[3] 16 & 17 Vict. c. 132.

tures or to discharge certain other claims," and their debts were declared to be "large and constantly increasing." Their whole undertaking was then in the hands of receivers appointed by the Court of Chancery at the instance of debenture holders. To avoid the stoppage of traffic, the company executed a deed, assigning all their rolling stock and other chattels to trustees upon trust for the debenture holders and all other creditors; the rolling stock being used for the purposes of the line at a rent payable to the trustees. The Act also provided that for a period of ten years, defined as "the suspense period," all suits and other proceedings against the company and their property with respect to existing debts should be stayed; the management of the undertaking was vested in a board, on which both mortgagees and shareholders were represented; new debenture stock of three classes was created, having certain priorities; special powers were given to the Court of Chancery for the settlement of the company's affairs; and the mortgagees and shareholders were authorized to compromise and readjust their respective rights and liabilities.

"Suspense period."

Carefully considered as it was, this legislation proved insufficient. In 1869, owing to the number of claims brought before the Court, and their complicated nature, no final order had been made. It was felt that the cumbrous and slow-working machinery of Chancery was unsuited for dealing with so great a variety of conflicting interests, and that some more speedy method was necessary for determining the relative rights of litigants. Two years' experience had shown that the company's revenues and property were "undoubtedly inadequate to satisfy the legal claims of the mortgagees and of the preference and other shareholders," even when the relative rights of all parties had been ascertained. Under these circumstances it was thought "indispensable that discretion should be placed in arbitrators specially constituted for the purpose, to determine not only the rights of the several parties, but also the most equitable method of re-

Railways Arbitration Act, 1869.

arranging, modifying, fusing, and reconstituting the capital of the company, and of providing for the satisfaction of the legal and equitable rights and liens of general creditors," and for the settlement of the affairs of the company, "as fully and effectually as could be done by Act of Parliament."[1]

In view of the expediency on public as well as private grounds of relieving the company from its difficulties, Parliament gave effect to these proposals.[2] The arbitrators were the Marquis of Salisbury and Earl Cairns. They were named in the Act, and their decision in all matters was to be "final and without appeal."[3] If they differed in any matter, they might appoint "an impartial and qualified person to act as umpire" between them; and his decision, with that of either of the arbitrators, was to have the same force as the decision of the two arbitrators acting jointly. Their powers were of the widest character and were really equivalent to legislative powers within the limits assigned by the Act. They were to settle (*a*) the relative rights, liabilities and interests of shareholders and creditors, and to determine the order and priority of all charges on the company's property and assets; (*b*) to distribute and apply any money then in the hands of the company or of the Court of Chancery, as well as of the company's future net revenue, in such manner as they thought most equitable; (*c*) to decide upon the legal and equitable rights and interests of all persons interested in the subsidiary railways leased or worked by the company, and the arrangements which ought to be made in these cases; (*d*) to decide also upon the legal and equitable rights,

Lord Salisbury and Lord Cairns appointed arbitrators.

Sect. 17.

[1] Preamble to 32 & 33 Vict. c. 116; London, Chatham and Dover Railway (Arbitration) Act, 1869.

[2] In case of vacancies, Lord Salisbury's place was to be filled by an arbitrator appointed by the Lord President of the Council for the time being; the successor to Earl Cairns was to be appointed by the Lord Chancellor. It was also provided that he should be either an ex-Lord Chancellor or a member of the Judicial Committee of the Privy Council who had been a judge of one of the Superior Courts of law or equity in England (sect. 27).

[3] 32 & 33 Vict. c. 116, s. 16.

liens and priorities of the company's general creditors, and the manner in which, and the funds out of which, these claims should be met; (*e*) to determine all pending actions or suits at law or in equity in which the company was a party as plaintiff or defendant, or in any other capacity. Finally, after ascertaining and determining these groups of questions, the powers of the arbitrators extended—

"To fuse and consolidate, upon such terms and subject to such conditions as they shall in the circumstances think most equitable and expedient, all or any of the separate undertakings, sections, divisions, and capitals of the company, and whenever, and to any extent in which it shall appear to them that by so doing substantial benefit will accrue to all parties interested, or injury to them will be avoided, and the prosperity of the whole undertaking promoted; to arrange, abate, adjust, and reconstitute and capitalize the company's borrowed and share capitals, funds, rent-charges, separate stocks, interest, arrears of interest and dividend, deferred dividend warrants, debts and liabilities of all kinds, as in the circumstances seems to the arbitrators most equitable and expedient; and to convert the same into such debenture, preference, or other stocks as the arbitrators shall direct; and such stocks shall be taken and accepted in lieu of the borrowed and share capitals, funds, rent-charges, separate stocks, interest, arrears of interest and dividend, deferred dividend, warrants, debts and liabilities, for which the same are substituted respectively; and the arbitrators shall also have power by their final award to settle a scheme for the reconstitution and future government of the company." Sect. 17, subsect. (*f*).

As between the company and all other persons, the arbitrators might settle all these matters "not only in accordance with the legal and equitable rights of the parties as recognized in the courts of law and equity, but upon such terms and in such manner in all respects as they in their absolute and unfettered discretion may think most fit, equitable, and expedient, and as fully and effectually as could be done by Act of Parliament." Sect. 22. All actions, suits and other litigation pending when the Act passed were transferred to the arbitrators, except proceedings against the company as common Sect. 23.

carriers, or relating to the investment and payment of money
Sect. 24. under the Lands Clauses Act; and during the arbitration, save in these two matters, the jurisdiction over the company of all courts of law or equity was suspended.

Awards under Act. A first award under this remarkable statute was made in August, 1870, and a second and final award in February, 1871. Both are scheduled to an Act obtained by the company in 1871.[1] While, technically, this is private legislation, and is limited to private interests, it clearly involves, as the preambles of most other private Bills involve, questions of principle and policy which are of especial importance on public grounds, and could not be properly dealt with except by Parliament as a part of its high legislative functions.[2] It

[1] 34 & 35 Vict. c. 131; and see 37 & 38 Vict. c. 54; 39 & 40 Vict. c. 84. Lest it should be supposed, from the examples in the text, that England and Scotland have a monopoly of these statutes, reference should be made to the Neath and Brecon Railway Act, 1869 (32 & 33 Vict. c. 145), suspending legal proceedings against that company, authorizing them to borrow money with priority over their existing loan capital, and otherwise arranging their affairs; and to the Newry and Armagh Railway (Arbitration) Act, 1870, for the arrangement by arbitration of the affairs of that company (33 & 34 Vict. c. 108).

[2] Some parallel to the exceptional legislation noted in the text is that of 1871 and 1872, relating to the Albert and European Life Assurance Companies. Both had absorbed many smaller institutions, and then fallen into financial difficulties. The complicated claims and interests relating to the amalgamated institutions (which themselves represented several kindred institutions) and to the shareholders in these two companies were settled by arbitration under the following private Acts:—As to the Albert Life Assurance Company, 34 & 35 Vict. c. 31; and 37 & 38 Vict. c. 58. As to the European Assurance Society, 35 & 36 Vict. c. 145; 36 & 37 Vict. c. 9; and 38 & 39 Vict. c. 157. Earl Cairns acted as arbitrator in the case of the Albert Company. Lord Westbury was appointed to the same office in the affairs of the European Society, and on his death was succeeded by Lord Romilly. Unfortunately, in some cases of great importance affecting the European liquidation, the second arbitrator differed in opinion from, and varied the orders of, his predecessor. It was therefore thought expedient, in the Act of 1875 last cited, to provide for an appeal in certain cases, though with a view to a more speedy end of litigation, the original Arbitration Act prohibited all such appeals. On the death of Lord Romilly, the arbitration was continued and concluded by the late Sir Francis S. Reilly, afterwards counsel to the Speaker. In the case of both companies, the arbitrators not only received authority to act as judges in the Court of Chancery, but, so far as concerned

may be said that in these Arrangement Acts Parliament confessed its helplessness and delegated its powers. But Parliament did not take this course without first carefully considering the expediency of such a delegation in each instance, and coming to the conclusion, as a Court of law does on hearing the main facts, that it was not competent to deal with so complicated a case. Moreover, Parliament, in referring these cases to arbitrators, carefully defined their jurisdiction with reference to the peculiar circumstances of each reference, and took care also that the arbitrators should be men of the highest authority.

Delegation of statutory powers.

The Lords' Committee of 1864 could "see no reason why railway companies should continue altogether free from the adjusting process to which other trading companies are liable through proceedings in bankruptcy." On the contrary, the Committee were "of opinion that the present practice, by which the affairs of companies practically bankrupt are patched up by successive Acts of Parliament, is injurious to the public, and too frequently of no real benefit to shareholders." If a company paid little or no dividend on its original capital, working expenses were often cut down injuriously, and the public suffered from insufficient service, high fares, and illiberal management. When, therefore, a railway company became seriously embarrassed, the Committee thought it would be for the public advantage that the line should be transferred to others by whom it might be more efficiently conducted.

Insolvency of railway companies.

Parliament did not adopt this recommendation, but by general legislation in 1867 it did provide more summary and effectual methods for extricating insolvent companies from their difficulties.[1] First, in order that public traffic may not be interrupted, rolling stock and plant are pro-

Railway Companies Act, 1867.

any of the matters referred to them, their jurisdiction extended to India, Canada, the Australian colonies, and all other parts of her Majesty's dominions.

[1] 30 & 31 Vict. c. 127.

tected from liability to be taken in execution.[1] When a railway company are unable to meet their engagements, the directors may prepare and file in the Court of Chancery a scheme of arrangement with their creditors, providing for the raising of fresh capital. After a notice in the *Gazette* of the filing of the scheme, no execution or other process is available against the company's property without leave of the Court. If the directors can, within a certain period, obtain assents to the scheme from specified proportions of the mortgagees and other creditors, and of the guaranteed or preference shareholders whose interests are prejudicially affected, the Court may confirm the scheme, which, upon enrolment, becomes binding and effectual. By this machinery, if suited to the case, an application to Parliament for a private Bill becomes unnecessary.

Promotion of competing railways.

At various times, it will be gathered, there have been keen discussions upon the expediency of granting powers for the construction of railways competing with authorized lines. No subject has more frequently occupied the attention of Private Bill Committees, and upon no subject have there been greater differences of opinion among the members of these Committees. The reason is that each case varies according to the prospects of traffic and remunerative revenue, the good faith of promoters, the engineering merits or demerits of the proposed line, its effect upon public roads and navigable rivers, the capacity of existing railways to accommodate the district, the opposition or support of landowners, and many other considerations, so that no hard and fast rule can be laid down as applicable to all cases. The issue to be tried, in fact, is not and never can be purely judicial; it is whether, upon a balance of conflicting interests of a more or less private character, the public advantage requires that a competing line should be sanctioned.

[1] This privilege, a temporary one in the Act under notice, is now made perpetual by 38 & 39 Vict. c. 31.